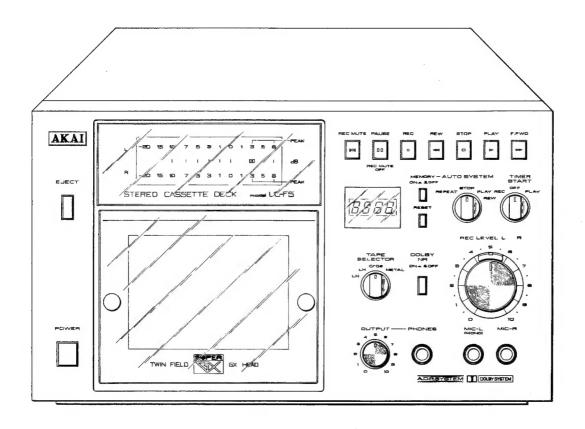
AKAI SERVICE MANUAL



STEREO CASSETTE DECK

MODELUC-F5



STEREO CASSETTE DECK

MODEL UC-F5

ALSO APPLICABLE TO BLACK PANEL MODEL

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SECTION 1

SERVICE MANUAL

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For basic adjustments, measuring methods, and operating principles, refer to GENERAL TECHNICAL MANUAL.

I. TECHNICAL DATA

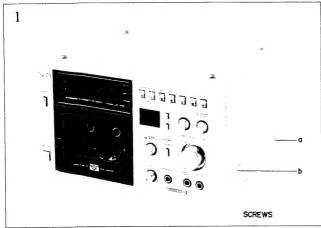
4 track 2 channel stereo system			
Philips type cassette			
4.76 cm/s ±1.5% (1-7/8 ips. ±1.5%)			
Erase head x1			
Twin field super GX recording/playback head ×1			
Electronically speed controlled			
DC motor for capstan drive x1			
DC motor for reel drive x1			
Less than 0.035% WRMS, 0.10% (DIN 45500)			
60 sec. using a C-60 cassette tape			
LN: 30 to 15,000 Hz ±3 dB (-20 VU)			
LH: 30 to 16,000 Hz ±3 dB (-20 VU)			
CrO_2 : 30 to 16,500 Hz ±3 dB (-20 VU)			
30 to 9,000 Hz ±3 dB (0 VU)			
Metal: 30 to 19,000 Hz ±3 dB (-20 VU)			
30 to 13,000 Hz ±3 dB (0 VU)			
LN: Better than 58 dB			
LH: Better than 59 dB			
CrO ₂ : Better than 60 dB			
Metal: Better than 61 dB			
(measured via tape with peak recording level)			
Dolby NR switch ON: Improves up to 10 dB above 5 kHz			
LN: Less than 0.8%			
LH: Less than 0.8%			
CrO ₂ : Less than 0.7%			
Metal: Less than 0.6%			
MIC 0.25 mV (input impedance 5.0 kohms)			
Required microphone impedance: 600 ohms			
LINE: 70 mV (input impedance 47 kohms)			
LINE: 410 mV at 0 VU			
Required load impedance: more than 100 kohms			
PHONE: 100 mV/8 ohms at 0 VU			
280 (W) × 161 (H) × 277 (D) mm (11.0 × 6.3 × 10.9")			
7.6 kg (16.7 lbs)			
100 V, 50/60 Hz for Japan Model			
120 V, 60 Hz for U.S.A. and Canada			
220/240 V, switchable 50 Hz for European countries and			
Australia			
110/120/220/240 V, 50/60 Hz switchable for other countries			
28 W for JPN Model			
30 W for the other Models			

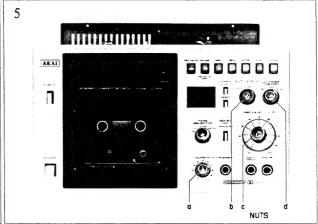
^{*} For improvement purposes, specifications and design are subject to change without notice.

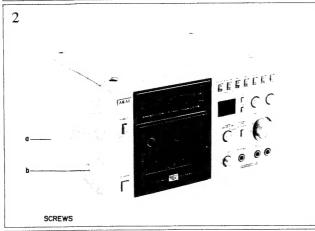
* "Dolby" and the Double D symbol are trademarks of Dolby Laboratories. (Manufactured under license from Dolby Laboratories).

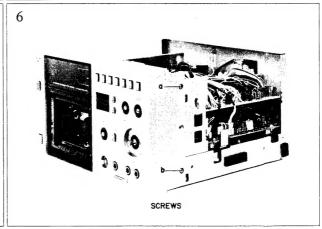
II. DISMANTLING OF UNIT

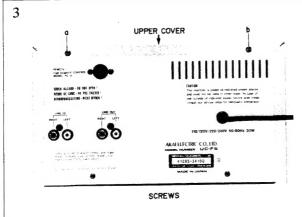
In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the photographs. Reassemble in reverse order.

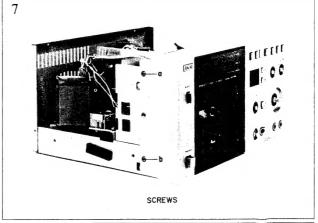


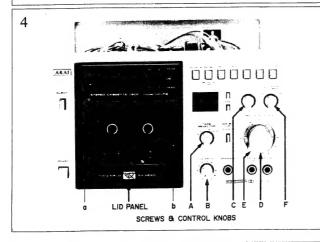


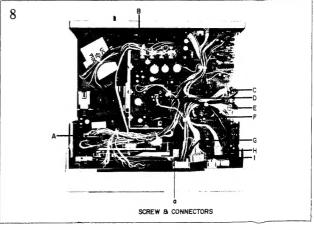


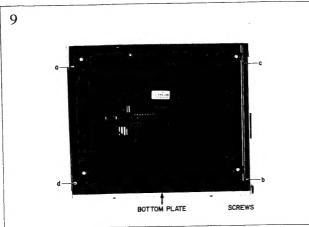


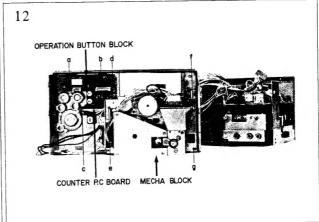


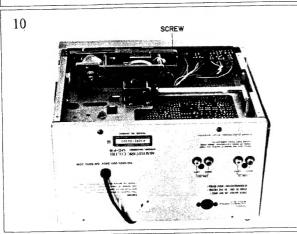


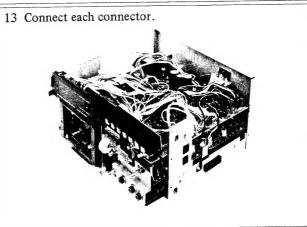


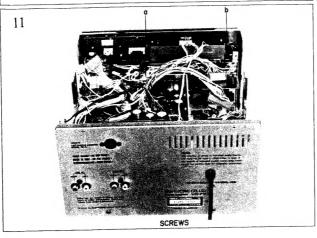












ζ

III. CONTROLS

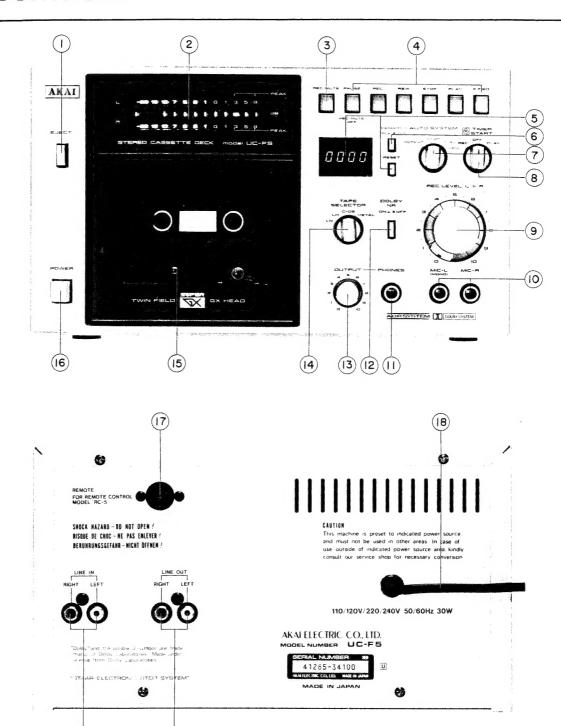


Fig. 1 Controls

1. EJECT BUTTON

20

- 2. FL DISPLAY BAR METERS
- 3. REC MUTE
- 4. MODE BUTTONS
- 5. INDEX COUNTER and RESET BUTTON

(19)

- 6. MEMORY BUTTON
- 7. AUTO SYSTEM
- 8. TIMER START SWITCH
- 9. REC LEVEL CONTROLS (Left and Right)
- 10. MICROPHONE JACKS (Left and Right)
- 11. HEADPHONE JACK

- 12. DOLBY NR BUTTON
- 13. OUTPUT LEVEL CONTROL
- 14. TAPE SELECTOR
- 15. CASSETTE RECEPTACLE
- 16. POWER SWITCH
- 17. REMOTE CONTROL JACK
- 18. POWER CORD
 (Some units have an AC inlet)
- 19. LINE OUT JACKS20. LINE IN JACKS

IV. PRINCIPAL PARTS LOCATION

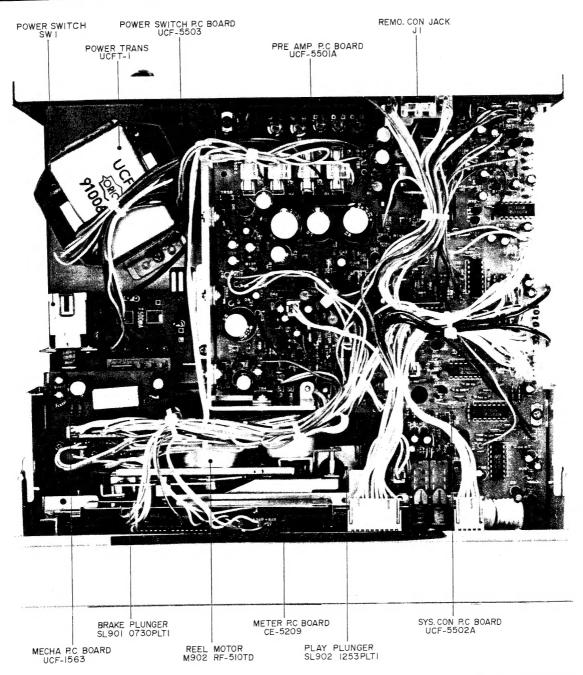


Fig. 2 Top View

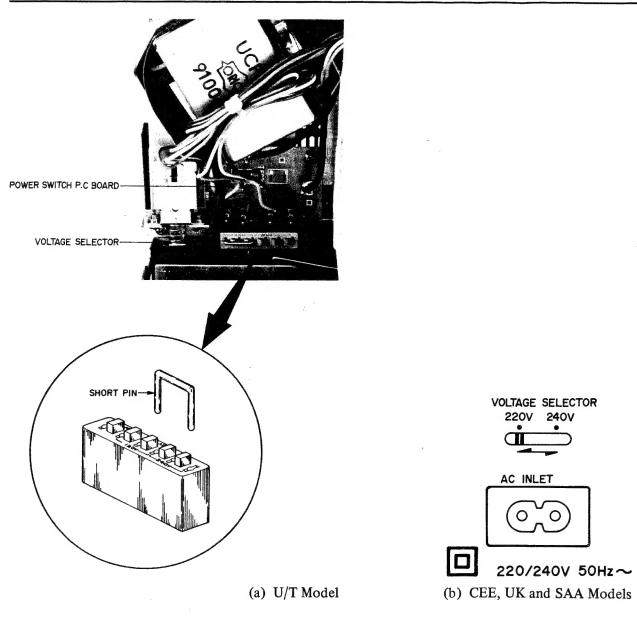


Fig. 3 Voltage Conversion

1. VOLTAGE CONVERSION

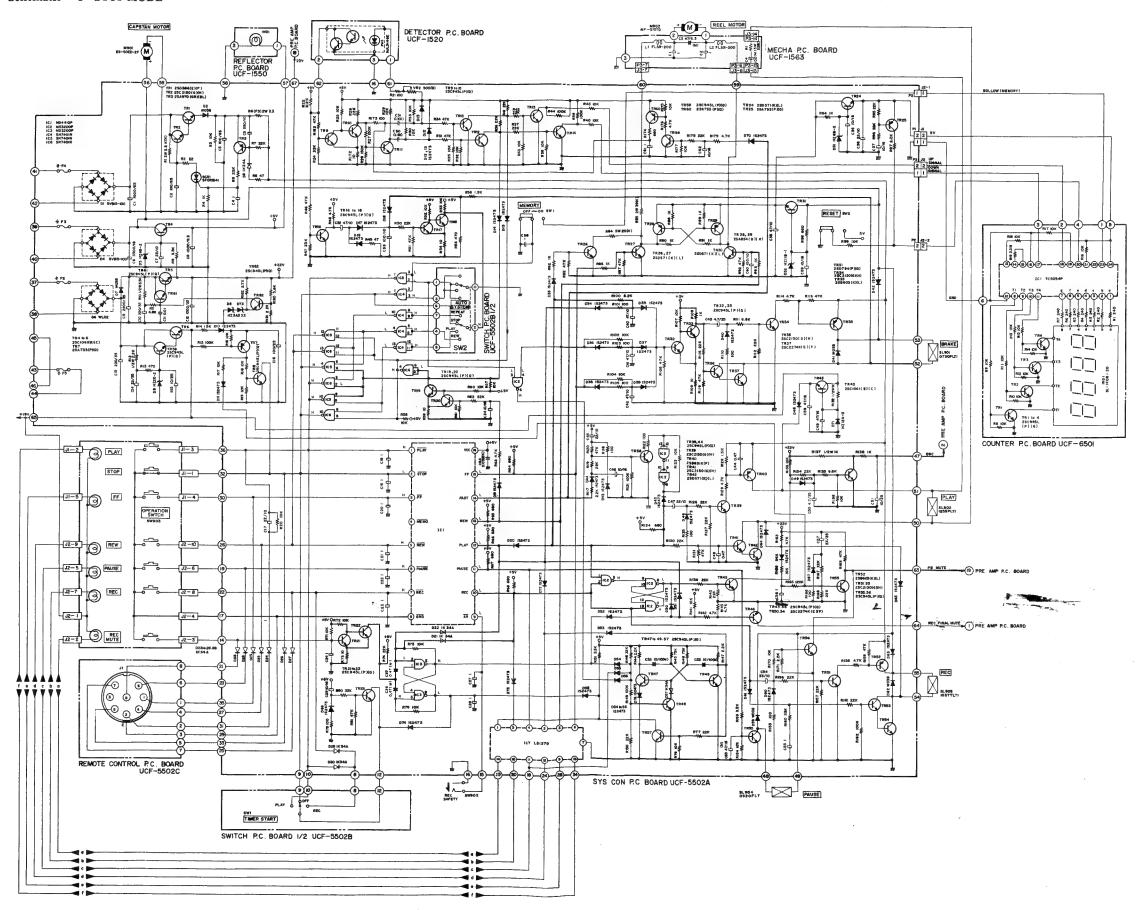
- 1-1. JPN, CSA and AAL Models
 - No, voltage conversion.
- 1-2. U/T Model (Refer to Fig. 3(a))
 - 1) Disconnect power cord.
 - 2) Loosen holding screws and remove upper cover.
 - 3) Remove short pin plug from present holes and replace in correct holes. Follow the markings explicitly.
- 1-3. CEE, UK and SAA Models (Refer to Fig. 3(b))
 A voltage selector switch is provided above the AC inlet on the back side of machine. Select the proper voltage by this switch according to the voltage to be used. Move the switch to the left side for 220V and to the right side for 240V.

2. CYCLE CONVERSION

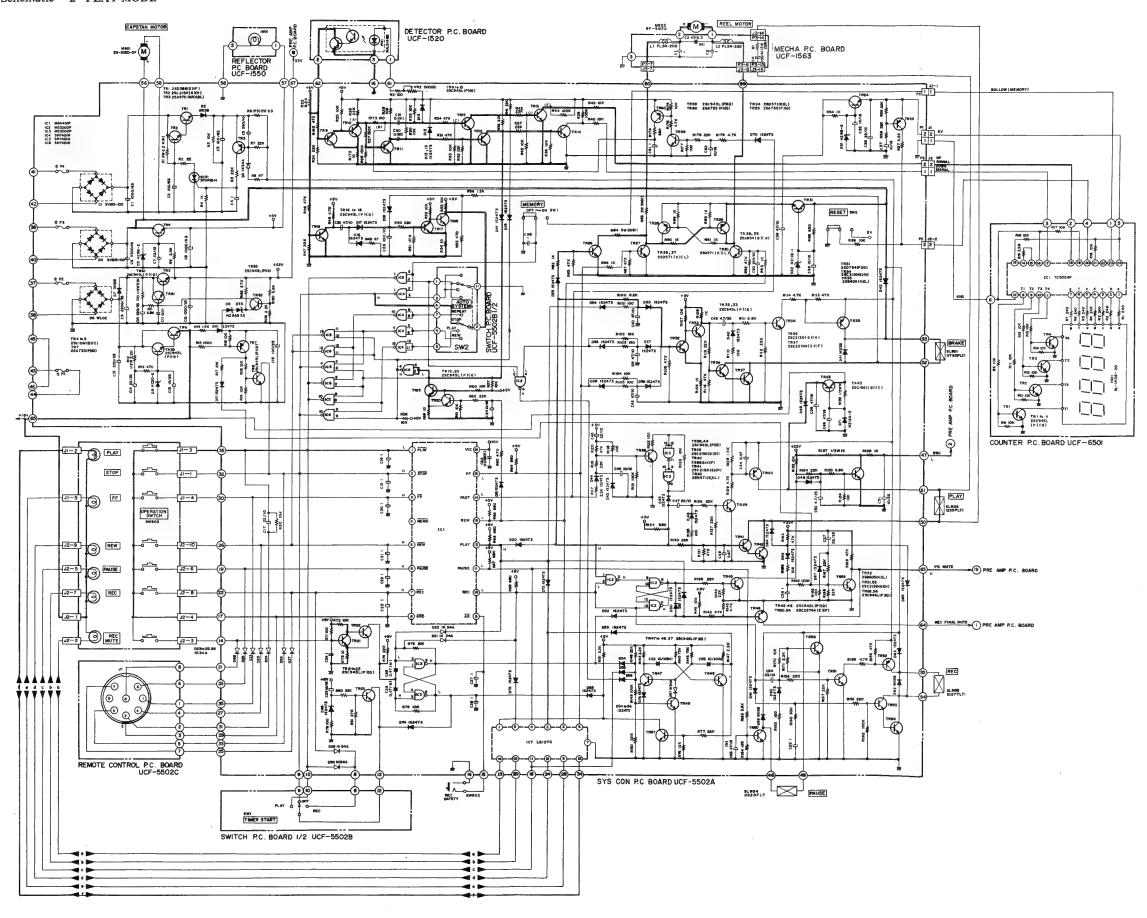
With DC motor, cycle conversion is not necessary.

1. SYSTEM CONTROL OPERATION

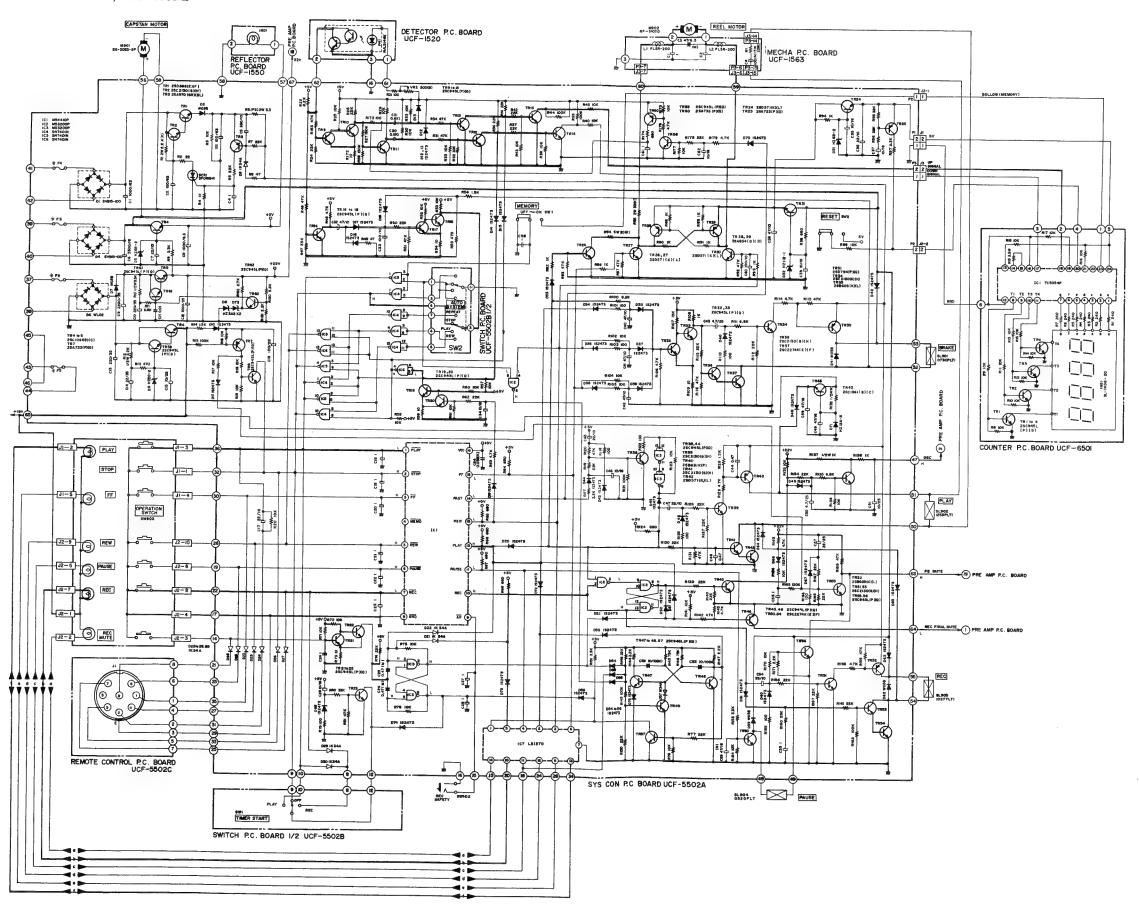
Schematic -1 STOP MODE



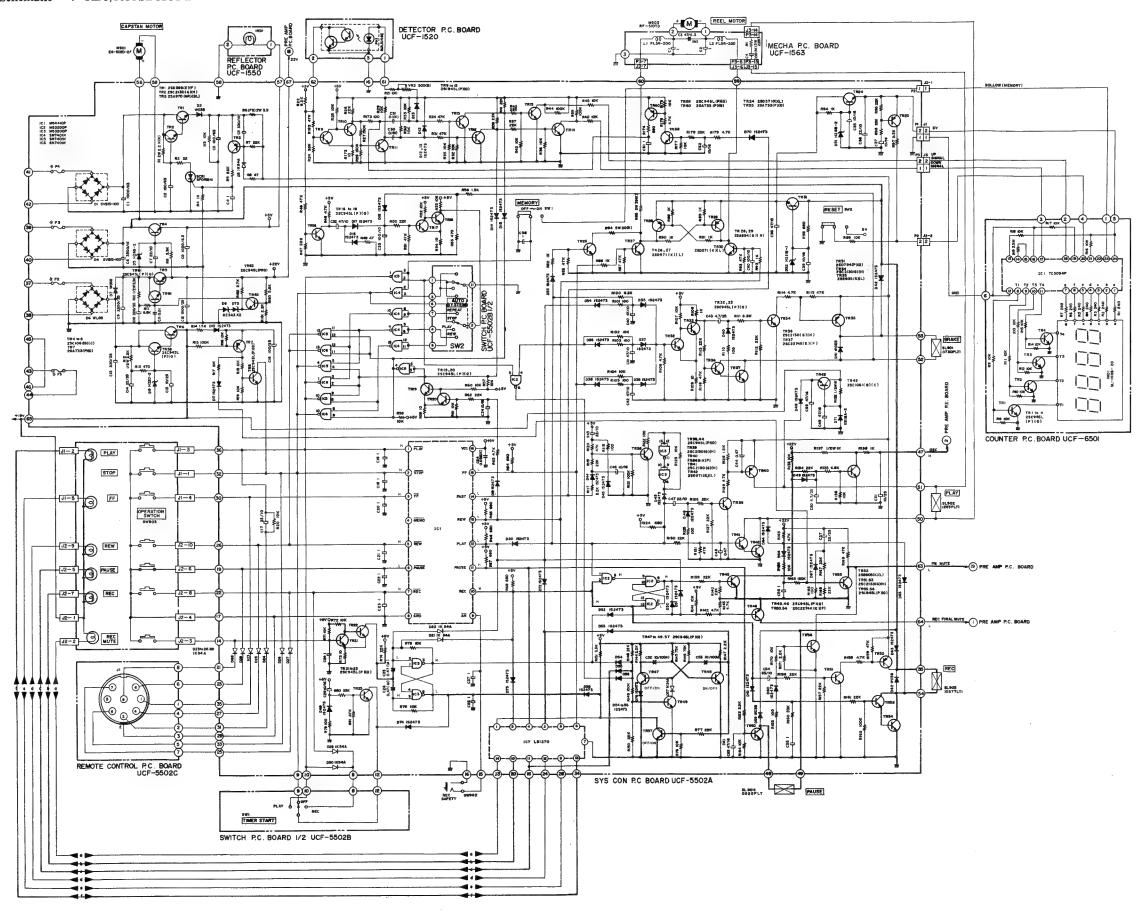
Schematic – 2 PLAY MODE



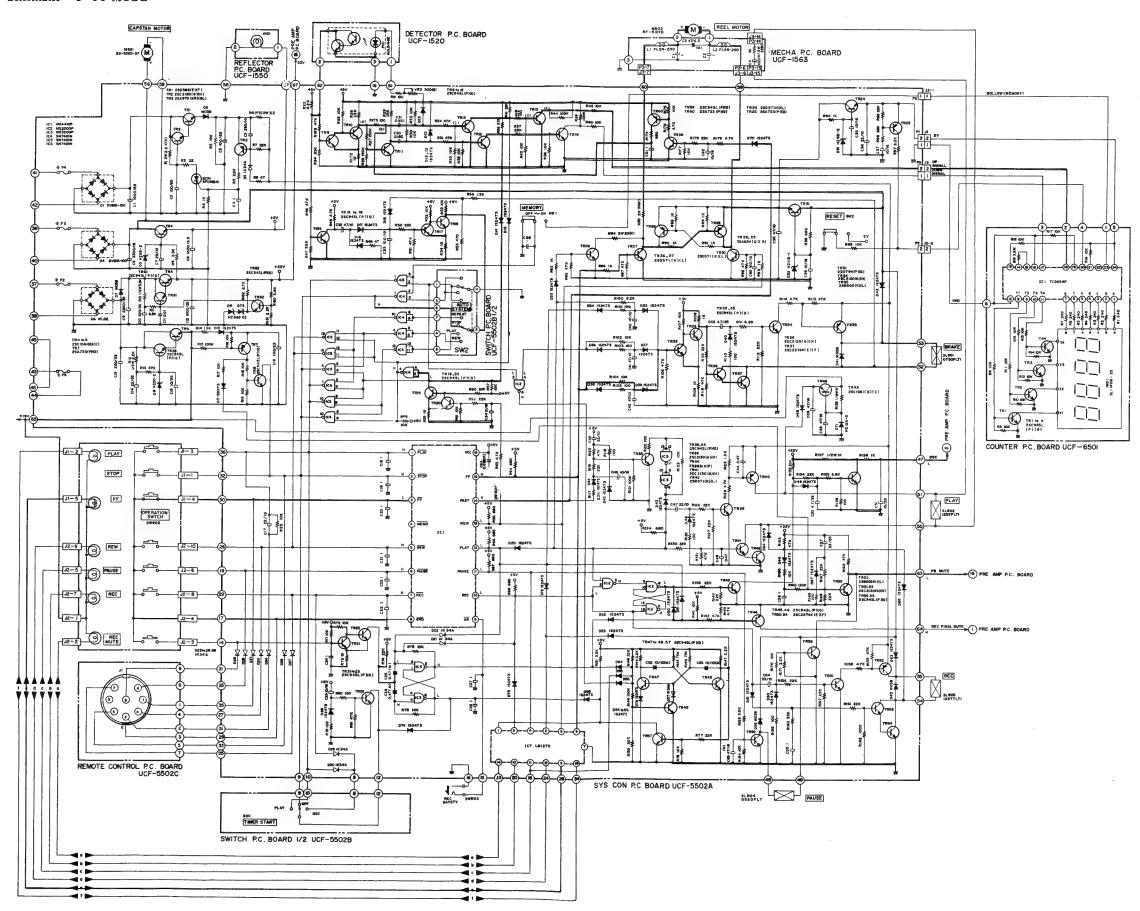
Schematic - 3 REC/PLAY MODE



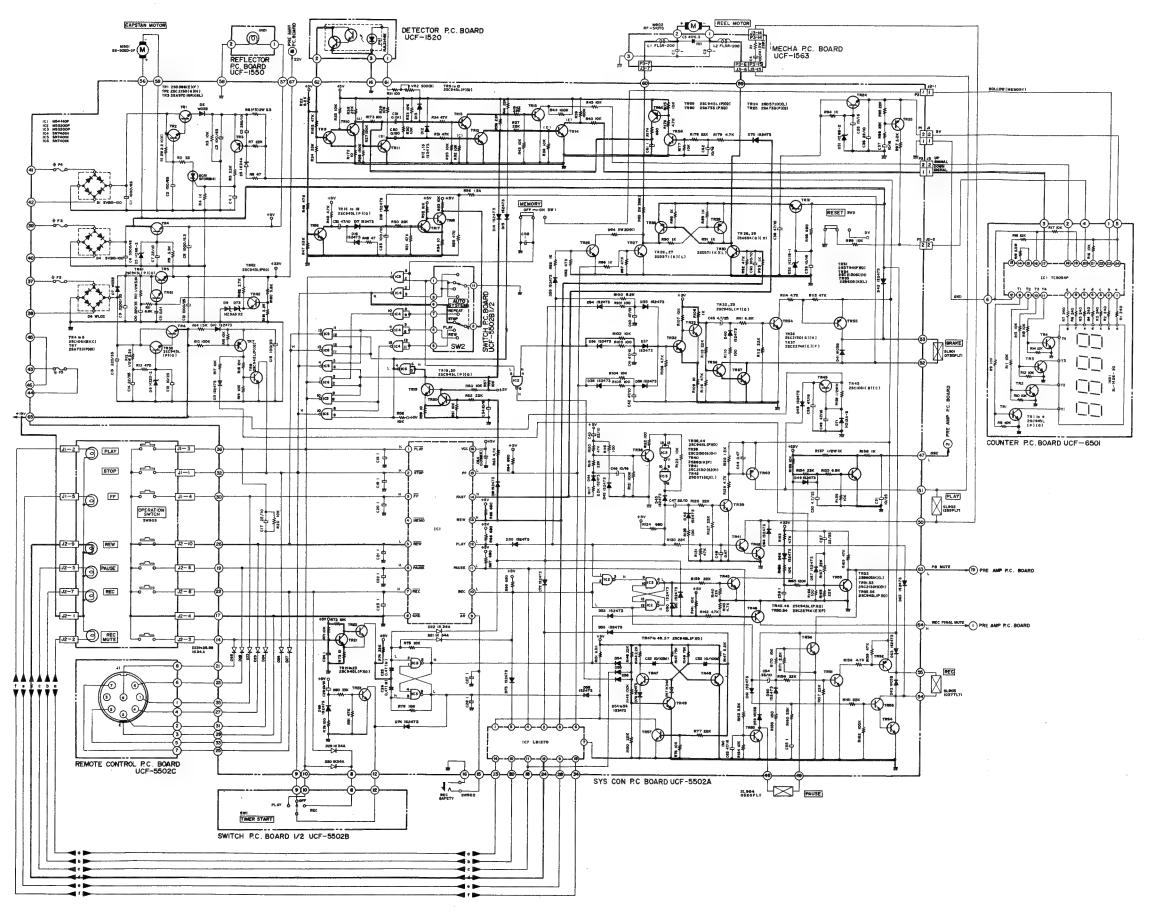
Schematic – 4 REC/PAUSE MODE



Schematic - 5 FF MODE



Schematic - 6 REW MODE



1-1. CIRCUIT CONSTRUCTION OF IC1 M54410P

This logic IC has been developed for an operation key that will maintain a HIGH output level by even a momentary low level in the desired input terminal.

1) Block Diagram

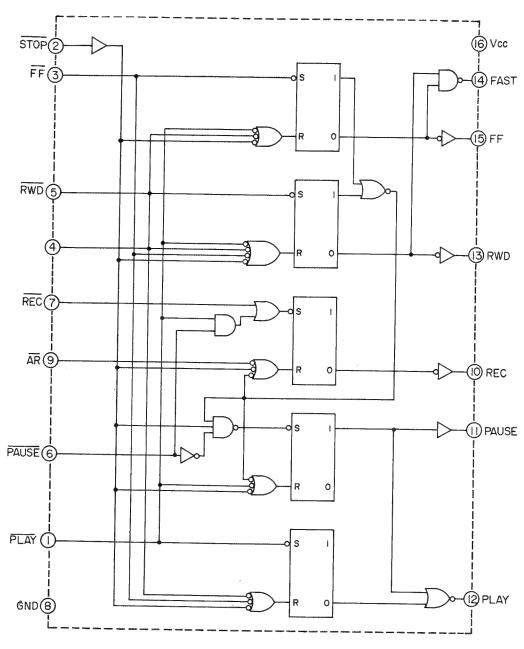


Fig. 4 M54410P

16

2) Terminals and their functions

	Terminal Name	Terminal Function			
	STOP	Input terminal for stopping operation			
	FF	Input terminal for fast forward			
Operation	REW	Input terminal for rewind			
input terminals	REC	Input terminal for recording			
99444	PAUSE	Input terminal for pause			
	PLAY	Input terminal for playback			
Control in	put terminal AR	Input terminal for preventing recording			
	FAST	Terminal with "H" signal output during fast forward or rewind mode			
	FF	Terminal with "H" signal output during fast forward mode			
Output	REW	Terminal with "H" signal output during rewind mode			
terminals	REC	Terminal with "H" signal output during REC/PLAY or REC/PAUSE mode			
	PAUSE	Terminal with "H" signal output during pause mode			
	PLAY	Terminal with "H" signal output during playback mode			

Chart-1

3) Operation activated by each input

1		Output						
Input Signal	FAST	FF	REW	REC	PAUSE	PLAY	Output Mode	
STOP	L	L	L	L	L	L	STOP Mode	
FF	Н	Н	L	L	L	L	FF Mode	
REW	Н	L	H	L	L	L	REW Mode	
PLAY	L	L	L	L	L	Н	PLAY Mode	
PAUSE	L	L	L	L	н	L	PAUSE Modle	
REC/PLAY	L	L	L.	Н	L	Н	REC/PLAY Mode	
REC/PAUSE	L	L	L	Н	Н	L	REC/PAUSEMIode	

- NOTES: 1. The input signal is activated by the fall of \bigsqcup .
 - 2. The output is maintained until the next input signal.
 - 3. \overline{AR} is a control input terminal and the REC output is not "H" when \overline{AR} = "L".
 - 4. When \overline{AR} = "L", signal is supplied during the REC output is "H", REC output becomes "L".
 - 5. At the moment the power is on, all output will be "L" and the Stop mode will be effected.

1-2. Transistor and Plunger Activated for Each Operation (Refer to Sys. Con Schematic Diagram)

	TR40	TR42	PLAY PLUNGER	TR35	TR37	BRAKE PLUNGER	TR52	TR54	REC PLUNGER	TR50	PAUSE PLUNGER
PLAY	Δ	0	0	Δ	0	0					
PLAY/PAUSE										0	0
REC/PLAY	Δ	0	0	Δ	0	0	Δ	0	0		
REC/PAUSE							Δ	0	0	0	0
FF				Δ	0	0					
REW				Δ	0	0					

O: Operating

 Δ : Momentary Operation

2. DIGITAL COUNTER CIRCUITRY OPERATION

2-1. Circuit Structure of IC1 TC5054P

TC5054P is an IC for a 4 digit, decade up/down counter with a built-in 7 segment driver/decoder.

On the inside, with the counter as base it is constructed of a 4 digit latch, multiplexer, scanning

oscillation circuit and a driver/decoder driving the LEDs directly. The clock input is separate for down and up clocks and each input has a schmitt trigger for shaping the waveform.

1) Block Diagram

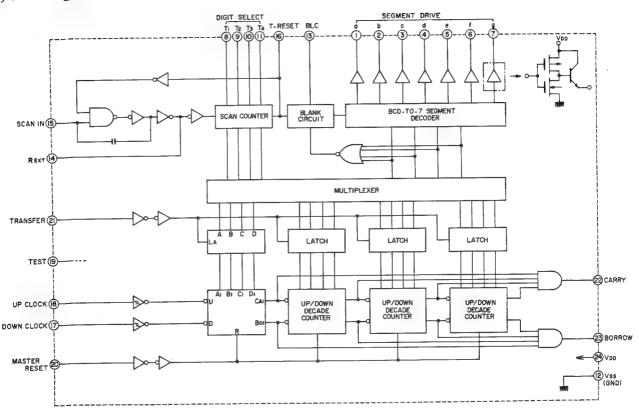


Fig. 5 TC5054P

2) Description of Pin Function

PIN NO.	SYMBOL	NAME	FUNCTION				
1	a .	SEGMENT a					
2	b	SEGMENT b	a-g are outputs which change the deciade up/down counter BCD				
3	С	SEGMENT c	output in 7 segment display element drive code. These segment				
4	đ	SEGMENT d	signals are output dynamically from the highest digit at the same				
5	е	SEGMENT e	time as SCAN input. Generous calculation of the IOH input				
6	f	SEGMENT f	enables the direct cathode common type LEDs to be driven.				
7	g	SEGMENT g					
8	T ₁	DIGIT SELECT 1	Outputs for displaying the number of digits of a-g outputs and				
9	T ₂	DIGIT SELECT 2	correspond in order to the highest digit from T1. By applying				
10	T ₃	DIGIT SELECT 3	the clock to the SCAN input changes $T_1 \rightarrow T_2 \rightarrow T_3 \rightarrow T_4 \rightarrow T_1$				
11	T4	DIGIT SELECT 4	automatically.				
12	VSS	V _{SS}	(GND)				
13	BLC	BLANKING	"H" Not zero supressed Digits higher than the position (n-1) can have the				
	BLC	CONTROL	"L" All digits leading zero supressed by connecting with Tn.				
14	REXT	REGISTER EXTERNAL	Scan clock generated if a resistor is connected in between it and SIN. Open when SIN is applied from outside.				
15	SIN	SCAN IN	Is the clock input for the digit selection counter and if a resistor is connected between it and REXT., can oscillate itself. (Equally a pulse may be added from outside.)				
16	TR	T-COUNTER RESET	The input of "H" level can stop the SCAN counter. When TR is raised, the SCAN counter will always open scanning from T ₁ .				
17	DOWN	DOWN COUNT	With the UP input at "H" level by applying a pulse, the internal counter counts down at the raised part of the pulse.				
18	UP	UP COUNT	With the DOWN input at "H", by applying a pulse, the internal counter can count up at the raised parts of the pulse.				
19	TEST	TEST	Conducted at "L" level. (If at "H" level the count will change at the raised and lowered of the pulse.)				
20	MR	MASTER RESET	During count can be cleared to "0000" by inputting "H" level.				
21	TRF	TRANSFER	With a "H" level input, the counter's contents are usually passed through the multiplexor and then output. With "L" level input, the counter's contents are held in the LATCH circuit until it changes to "L" and even if the counter's contents change it does not change.				
22	CARRY	CARRY	During UP COUNT, when the counter registers "999", "H" level is output only while the UP CLOCK is "L" level.				
23	BORROW	BORROW	During DOWN COUNT, when the counter registers "0000", "H' level will be output only while the DOWN CLOCK input is at "L".				
24	V _{DD}	$V_{ m DD}$	(V _{DD})				

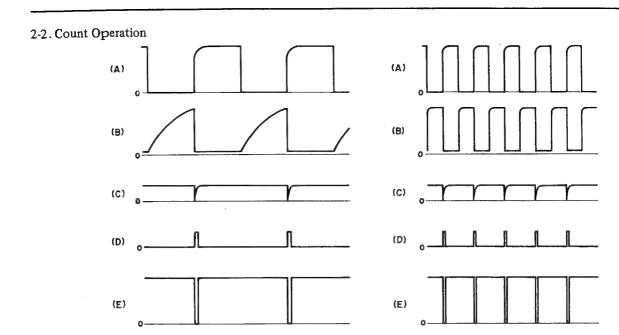


Fig. 6

The count pulse is generated by PH 1 together with the reel revolution. This pulse is amplified by TR9 and TR10, its waveform shaped by TR13 and TR15 during FF and PLAY and then it is input into TC5054P as up clock. During REW, its waveform is shaped by TR11, TR12 and TR14 and input as down clock. TR19 and TR20 switch between up clock and down clock.

(a) PLAY MODE

1) UP Count Operation in FF or PLAY Modes
(Refer to Schematic 2, 5 and Fig. 6)
In FF or PLAY modes, as TR20 is OFF, ba

In FF or PLAY modes, as TR20 is OFF, base bias is added to TR19 through R60 turning TR19 ON. As a result, TR12's collector becomes earth potential and the count pulse is not added to TR14. In this way, the count pulse amplified by TR9 and TR10 passes through TR13 and TR15 and is input into the up count of TC5054P as up count pulse. At this point the pulse widths are different in FF and PLAY modes so TR60 is turned ON (FF mode) and OFF (PLAY mode), C61's charging curve is changed and the count operation secured. In the FF mode, as TR59 and TR60 are ON, the charging time for C61 is decided by R174-C61 and is short if compared with PLAY. In the PLAY mode, as TR54 and TR60 are OFF, the charging time for C61 is decided by (R26 + R173) -C61 and is longer than FF. In the PLAY mode, a noise pulse may be generated by light but this is eliminated by C61 by making the time longer and miscounting is prevented. Fig. 6 is the waveform of points A to E drawn in the Schematics 2, 5.

2) Down Count Operation During REW (Refer

to Schematic 6 and Fig. 6).

(b) FF, REW MODE

In the REW mode, base bias is added to TR20 and TR20 is turned ON. Next, as TR19 is OFF, "H" level is input into IC6 ⑤, ⑥ through R57 and "L" level is output to IC6 ④. As a result, TR13's collector becomes earth potential and the up count pulse is not added to the base of TR15. In this way, the count pulse amplified by TR9, TR10 passes through TR11, TR12 and TR14 and is input into the down count input of TC5054P as down count pulse.

3) Memory Stop Operation (Refer to Schematic 6)

"H" level appears in TC5054P's BORROW terminal 23 when the counter has become "0000" at down count. When the counter reaches "0000" when set at memory stop, "H" level appears from the BORROW terminal so passing through SW1 then IC4 2 becomes "H" level.

IC4 ③ is open and "H" level because the Auto System switch is at STOP. As a result, IC41 changes to "L" level and M54410P's stop input terminal is made "L" level. In this way, it changes to STOP mode from REW when the counter reaches "0000".

4) "0000" Indication Operation When the Power is Connected.

When the power supply is connected, TR25 turns ON only while C37 is being charged and through R97 "H" level is added to TR5054P's reset terminal. The counter display shows "0000".

In this way, then the power is supplied, "H" level is added to the reset terminal so that the counter will begin from "0000".

VII. MECHANISM ADJUSTMENT

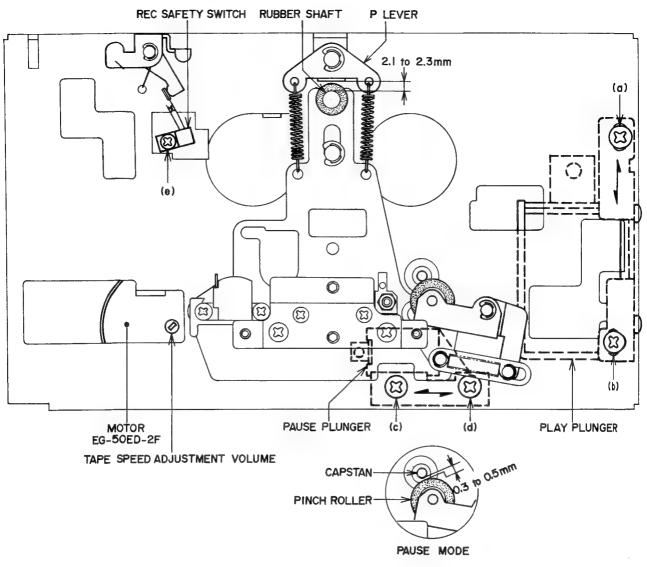


Fig. 7 Mecha Frame Block

1. PLAY PLUNGER INSTALLATION POSITION ADJUSTMENT (Refer to Fig. 7)

Put in PLAY mode to activate the PLAY plunger. Adjust the position of the play plunger with the installation screws (a), (b) so that the distance between the top edge of the rubber shaft and the P lever is 2.1 to 2.3 mm. After adjustment coat the installation screws with screw lock.

2. PAUSE PLUNGER INSTALLATION POSITION ADJUSTMENT (Refer to Fig. 7)

Adjust the position of the pause plunger with the installation screws (c), (d) so that the gap between the capstan and the pinch roller is 0.3 - 0.5 mm when changing from PLAY mode to PAUSE mode. After adjustment, paint lock the screws.

3. REC SAFETY SWITCH INSTALLATION POSITION ADJUSTMENT (Refer to Fig. 7)

Using a cassette pack with the break-out tabs broken and a cassette pack with the break-out tabs unbroken, adjust the Rec Safety installation position until the conditions below are satisfied:

- a) does not enter into REC mode (switch point 0 N) when a cassette pack with the break-out ta bs broken is inserted.
- b) does enter into REC mode (switch point OFF) when a cassette pack with the break-out lates unbroken is inserted.

after adjustment, paint lock the screws.

4. TAPE SPEED ADJUSTMENT

(Refer to Fig 7)

Connect the frequency counter to the line oup_ut terminals. Playback a 1,000 Hz prerecorded test ape and adjust tape speed adjustment volume to obain a tape speed of 1,000 Hz ±1.5%.

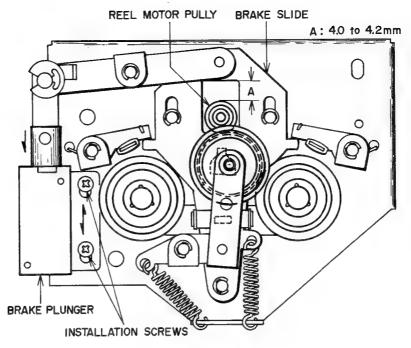


Fig. 8 Sub Frame Block

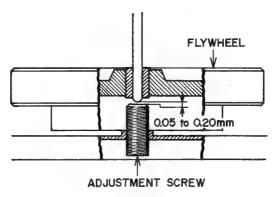


Fig. 9 Flywheel Adjustment

5. BRAKE PLUNGER INSTALLATION POSITION ADJUSTMENT (Refer to Fig. 8)

Once the core of the brake plunger has been pushed in the direction of the arrows, (the brake plunger is in operation) loosen the two installation screws and alter their position until gap A is 4.0 to 4.2 mm. After adjustment, paint lock the screws.

6. FLYWHEEL LOOSE PLAY ADJUSTMENT (Refer to Fig. 9)

Adjustment by turning flywheel loose play adjustment screw to obtain a 0.05 to 0.20 mm of loose play when the flywheel is moved as indicated by the arrow mark. After adjustment, paint lock the screws.

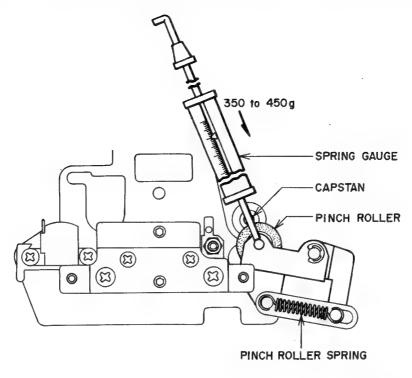


Fig. 10

7. PINCH ROLLER PRESSURE MEASUREMENT (Refer to Fig. 10)

At playback mode, push the pinch roller with a spring gauge until the pinch roller separates from the capstan by about 1 mm to 2 mm and then gently return. Take a reading of the spring gauge indication at the moment the pinch roller touches the capstan and begins to rotate

Specified Pinch Roller Pressure: 350 to 450 grm In case specified pressure cannot be attained, replace the pinch roller spring.

8. WINDING TORQUE MEASUREMENT IN EACH MODE

Insert cassette torque meter and measure in each mode. For fast forward and rewind measure at the end of the tape when the tape has stopped running. The specified torque is:

Play: 35 to 55 g-cm.

Fast Forward, Rewind: 70 to 120 g-cm.

When both the standard torque values are extremely small, check to see if there is any oil on the idler, reel table and motor pulley.

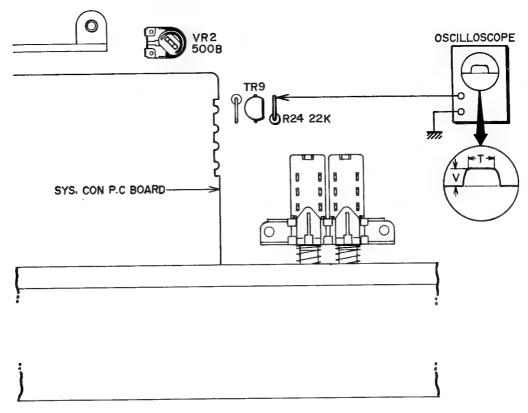
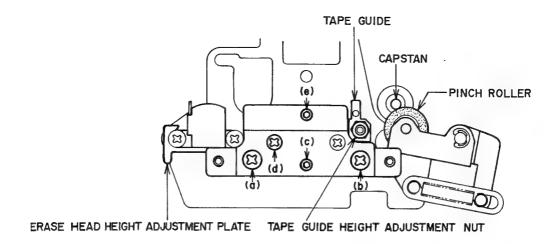


Fig. 11

9. ADJUSTMENT OF DIGITAL COUNTER'S SENSITIVITY (Refer to Fig. 11)

Make an empty pack, without the tape by removing only the tape from a TDK Low Noise Pack. Insert this cassette pack and put to PLAY mode. Connect a oscilloscope between the T.P. (R24's TR9 base side) and earth. Adjust with VR2 500B until the oscilloscope's waveform is V > 0.2V, T > 7 msec.



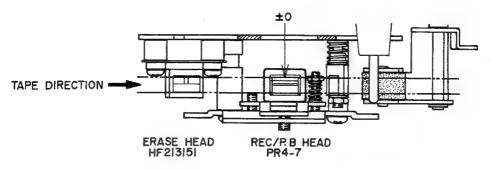


Fig. 12 Head Adjustment

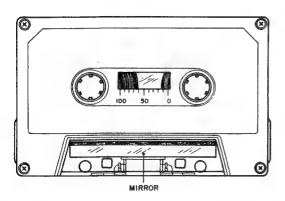


Fig. 13 Mirror Cassette

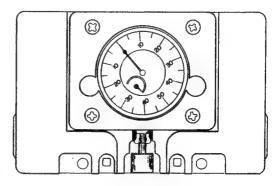


Fig. 14 AKAI Head Projection Gausge

1. TAPE GUIDE HEIGHT ADJUSTMENT (Refer to Figs. 12, 13)

- 1) When using an ordinary cassette, the tape guides and heads, etc. are not visible. As shown in Fig. 13 use a cassette tape from which part of the cassette case has been cut out and a mirror installed for easy visibility of the head area when making tape guide height adjustment.
- 2) To adjust the height of Tape Guide (A), take the height of the Tape Guide (B) as the standard height. Normally do not adjust the height of the combined erase head and Tape Guide (B). Adjust the height of the Tape Guide (A) in the PLAY mode so that the tape runs smoothly without getting caught in a tape guide.
- 3) When changing the erase head, adjust the height of the Tape Guide (A) completely before changing

the erase head. Change the erase head. Thistirme, taking the height of the Tape Guide (A) s the standard height, change the Erase Head leight Adjustment Plate with one of different thickn ess and adjust the height of the Tape Guide (B).

2. REC/PB HEAD PROJECTION

ADJUSTMENT (Refer to Figs. 12 1 4) Insert the AKAI Head Projection Gauge (Fig 1 4) and adjust screws (a) and (b) so that it reads 34 to 3.65 mm in the Playback Mode.

3. RECORDING/PLAYBACK HEAD HEIGHT ADJUSTMENT (Refer to Figs. 12, 13)

- Utilize the cassette tape used in Tape Guide Height Adjustment above, and playback the leader tape part of cassette tape.
- 2) As shown in Fig. 12, adjust head height with screws (c), (d) and (e) until the upper edge of the tape is the same height as the upper edge of the left channel REC/PB head core.
- After completing adjustment step 2), playback the Head Height adjustment tape (4 track, 1,000 Hz) and adjust Head Height adjustment screws (c), (d), (e) to put the output power from both channels to maximum.

4. RECORDING/PLAYBACK HEAD AZIMUTH ALIGNMENT ADJUSTMENT (Refer to Fig. 12)

1) Playback a 10 kHz pre-recorded cassette azimuth alignment test tape and adjust screw (d) shown in Fig. 12 to obtain maximum output on both channels.

- 2) Invert cassette and confirm that the output level does not change from that obtained in Item 4-1) above. If the output level differs, adjust in the same way as in Item 4-1) above until both sides of the test tape display equal output.
- 3) After adjustment, check head height and azimuth alignment again.
- NOTES: 1. Be sure to clean the heads prior to head adjustment.
 - Be careful not to use a magnetized driver or other magnetized tools in the vicinity of the heads.
 - 3. Be sure to demagnetize the heads with a Head Demagnetizer before and after head adjustment.
 - 4. When a mirror installed cassette test tape as shown in Fig. 13 is required, it can be ordered from AKAI Electric Co.

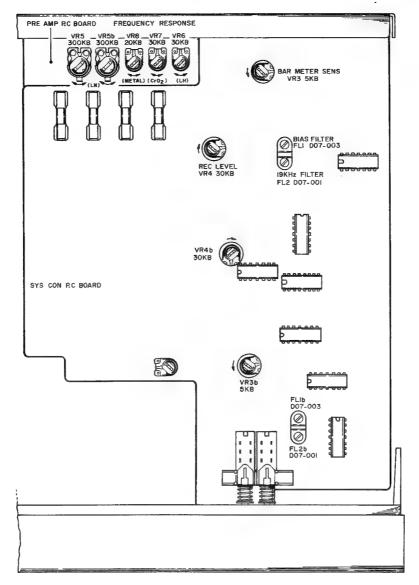


Fig. 15 Amplifier Adjustment Points (Top View)

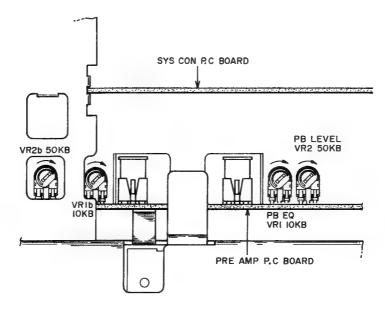


Fig. 16 Amplifier Adjustment Points (Right Side View)

Step	Adjustment Item	Test Tape Supply Signal	Mode	Adjustment Point	Result	Remarks
1	Playback Level	333 Hz, 0 VU Test Tape	PB	VR2 50 kB	-5.5 ±0.3 dBm (410 mV)	
2	Bar Meter Sensitivity	1,000 Hz -5.5 dBm from oscillator	REC	VR3 5 kB		Then turn in a direction ppears. Adjust at the isappears.
3	Playback Equalizer	10 kHz Test Tape	PB	VR1 10 kB	-19.0 ±0.5 dBm	
4	LN Position Frequency Response	Low Noise blank tape, 1,000 Hz 10,000 Hz -25.5 dBm recording	REC/PB	VR5 300 kB	1,000 Hz to 10,000 Hz flat	
5	LH Position Frequency Response	LH Blank tape 1,000 Hz 10,000 Hz -25.5 dBm recording	REC/PB	VR6 30 kB	1,000 Hz to 10,000 Hz flat	Set tape selector to LH Position
6	CrO ₂ Position Frequency Response	CrO ₂ Blank tape 1,000 Hz 10,000 Hz -25.5 dBm recording	REC/PB	VR7 30 kB	1,000 Hz to 10,000 Hz flat	Set tape selector to CrO ₂ Position
7	Metal Position Frequency Response	Metal Blank tape 1,000 Hz 10,000 Hz -25.5 dBm recording	REC/PB	VR8 20 kB	1,000 Hz to 10,000 Hz flat	Set tape selector to Metal Position
8	Recording Level	LN Blank tape 1,000 Hz -5.5 dBm recording	REC/PB	VR4 30 kB	-5.5 ±0.3 dBm	Set the MIC Volume to Minimum
9	Distortion Factor Confirmation	1,000 Hz -5.5 dBm recording	REC/PB		LN < 0.8% LH < 0.8% CrO ₂ < 0.7% Metal < 0.6%	NOTE 6
10	Bias Filter	No signal input	REC	FL 1 D07-003	AC Voltmeter indicates to minimum	Set tape selector to Metal Position Set REC Volume to maximum NOTE 8
11	19 kHz Filter adjustment	19 kHz from oscillator	REC	FL 2 D07-001	AC Voltmeter indicates to minimum	Set Dolby NR Switch to ON Position. NOTES 7, 8.

- NOTES: 1. The Output Level Control should be at maximum.
 - 2. Because each of these adjustments is vital to perfect Dolby NR circuit operation, ensure that they are carried out with as few errors as possible.
 - 3. Except for Step 5 thru 7, 9 and 10, set Tape Selector to LN Position.
 - 4. Except for Step 12, set Dolby NR switch to OFF Position.
 - 5. Use the following cassette measuring tapes:

LN tape	:	TDK	D	C-60
LH tape	:	Maxell	UD	C-60
CrO ₂ tape	:	TDK	SA	C-60
Metal tape	:	TDK	MA-C	C-60

- 6. If it does not comply with the specifications, repeat Steps 4 to 8 and readjust.
- 7. Adjust the oscillator's frequency to give a frequency counter reading of 19.00 kHz.
- 8. Unless the core is moved unintentionally this adjustment is not necessary.

X. DC RESISTANCE OF VARIOUS COILS

Parts	Designation	DC Resistance
Recording/Playback Head	PR4-7	650 ohms ±10%
Erase Head	HF213151	3.7 ohms
Play Plunger Solenoid	1253PLTI	73 ohms ±10%
Rec Plunger Solenoid	1037TLTI	120 ohms ±10%
Pause Plunger Solenoid	0520FLT	600 ohms ±10%
Brake Plunger Solenoid	0730PLTI	200 ohms ±10%

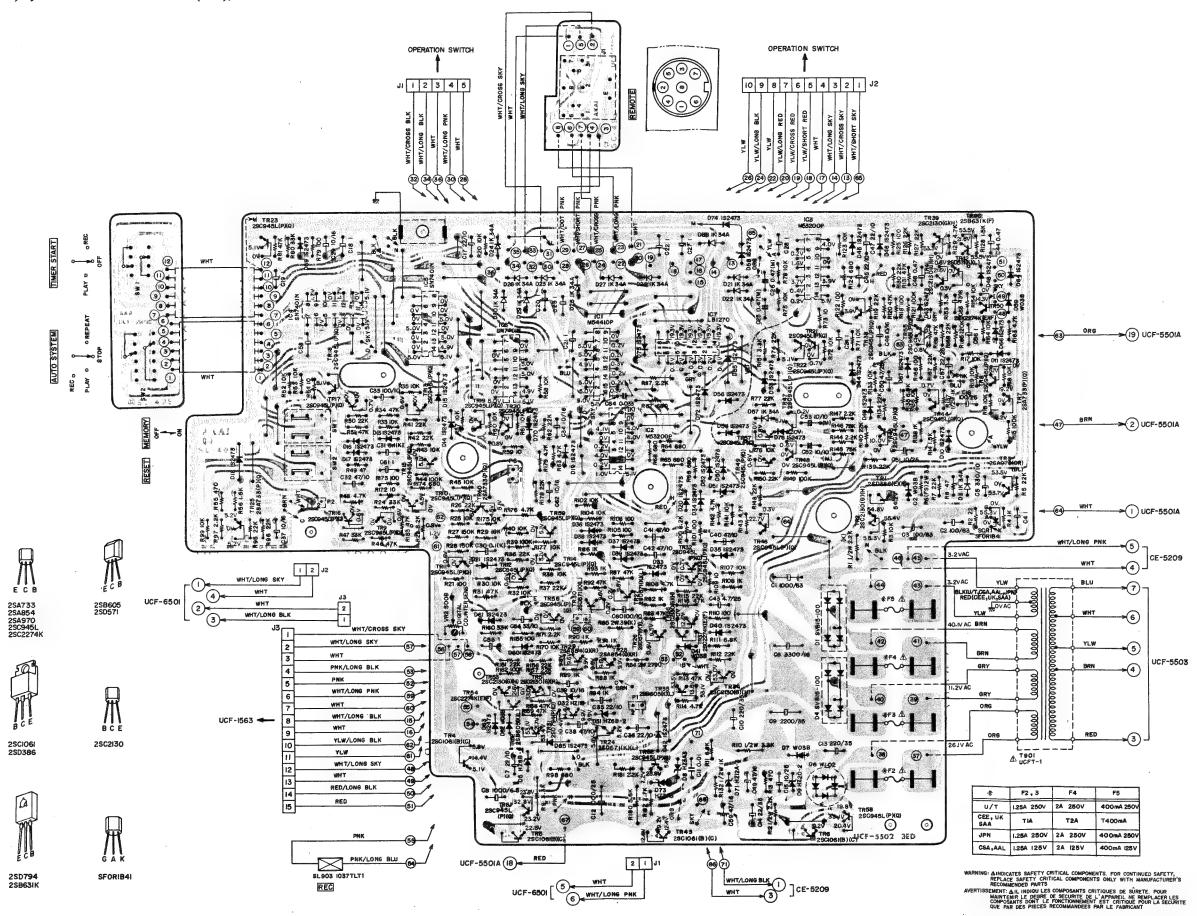
XI. CLASSIFICATION OF VARIOUS P.C BOARDS

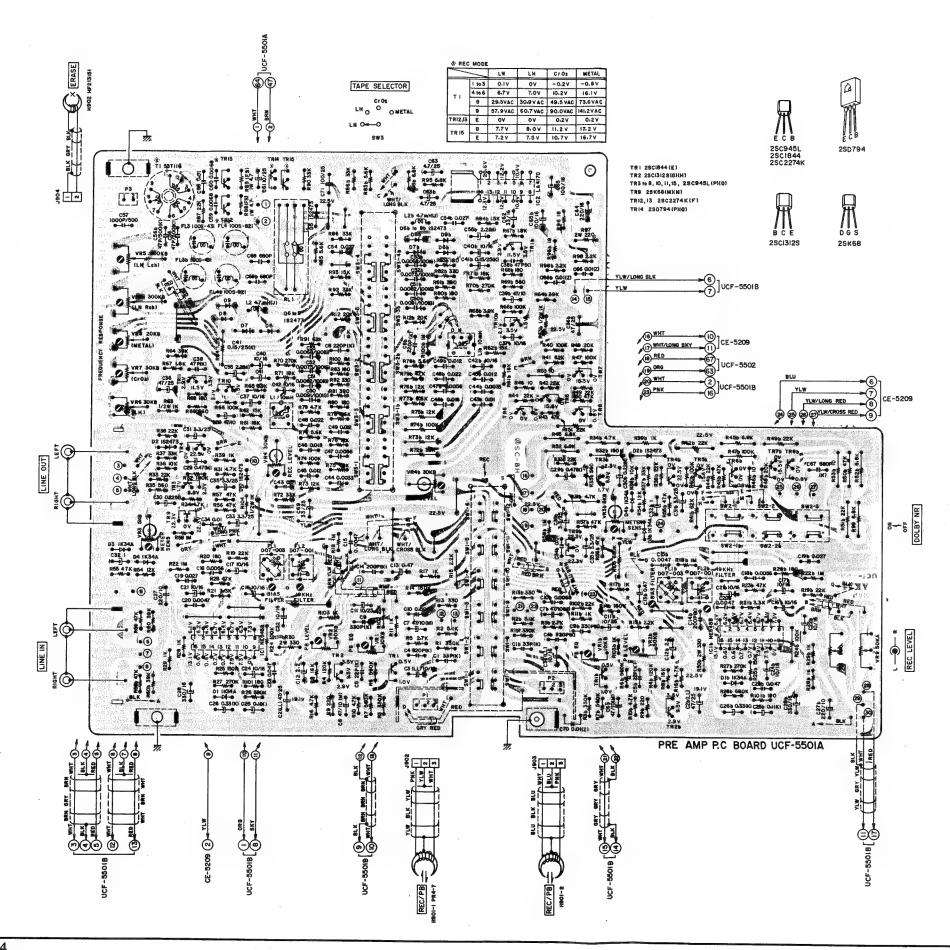
1. P.C BOARD TITLES AND IDENTIFICATION NUMBERS

P.C Board Title	P.C Board Number		
Pre Amp P.C Board	UCF-5501A		
Jack P.C Board	UCF-5501B		
Sys. Con P.C Board	UCF-5502A		
Switch P.C Board	UCF-5502B		
Remo. Con P. C Board	UCF-5502C		
Power Switch P.C Board	UCF-5503		
Reflector P.C Board	UCF-1550		
Detector P.C Board	UCF-1520		
Mecha P.C Board	UCF-1563		
Counter P.C Board	UCF-6501		
Meter P.C Board	CE-5209		

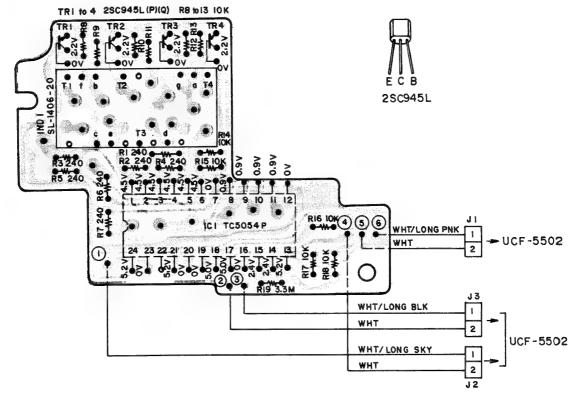
2. COMPOSITION OF VARIOUS P.C BOARDS

1) Sys. Con P.C Board UCF-5502A (3ED), Switch P.C Board UCF-5502B and Remote Control P.C Board UCF-5502C



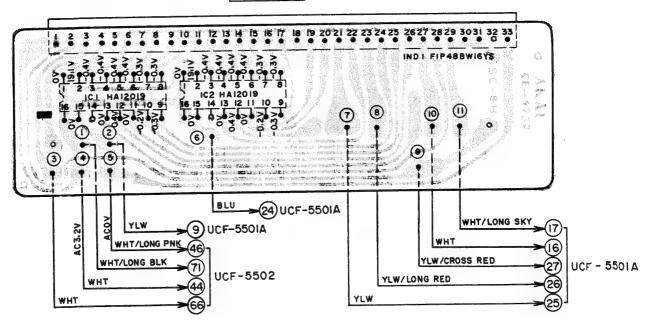


3) Counter P.C Board UCF-6501

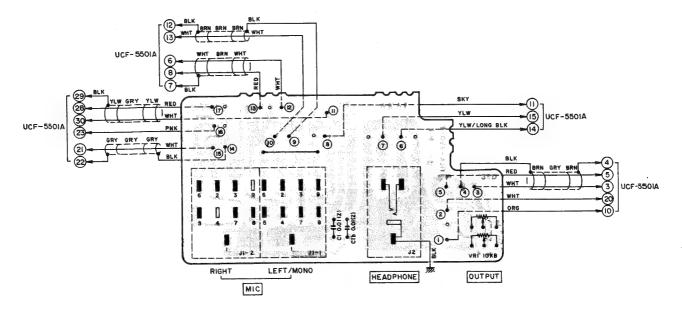


4) Meter P.C Board CE-5209

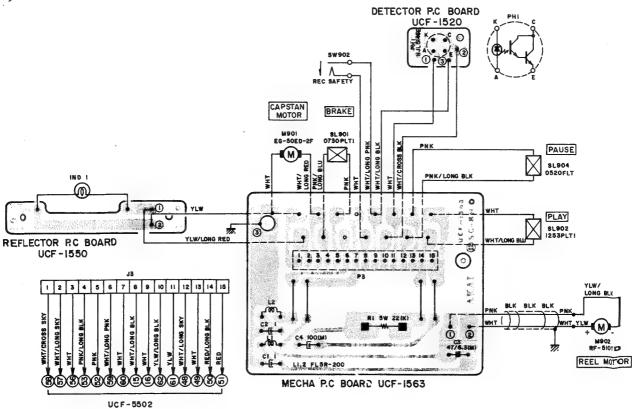
BAR METER



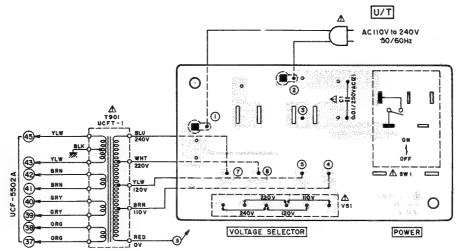
5) Jack P.C Board UCF-5501B (3ED)

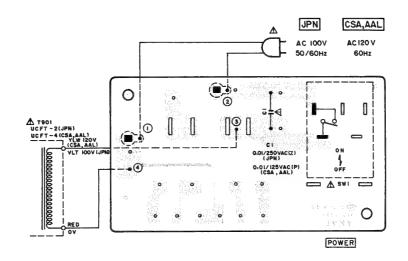


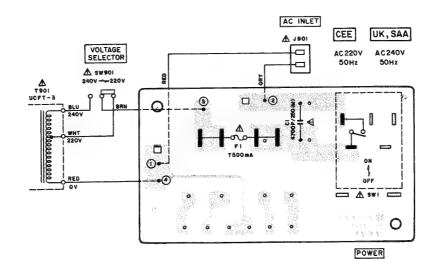
6) Mecha P.C Board UCF-1563 (3ED), Reflector P.C Board UCF-1550 and Detector P.C Board UCF-1520



7) Power Switch P.C Board UCF-5503







WARNING: AINDICATES SAFETY CHITICAL COMPONENTS. FOR CONTINUESAJETY,
RECOMMENDED PARTS

AVERTISSEMENT: AIL INDIOU LES COMPOSANTS CRITIQUES DE SÜRETÉ POLAR

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SECTION 2

PARTS LIST

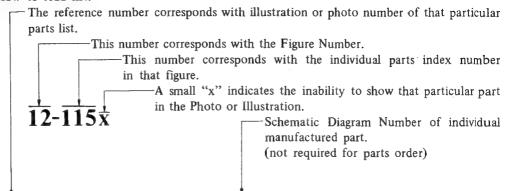
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Resistor and Capacitor which is not listed in this parts list, please refer to COMMON LIST FOR SERVICE PARTS.

HOW TO USE THIS PARTS LIST

- 1. This parts list is compiled by various individual blocks based on assembly process.
- 2. When ordering parts, please describe parts number, serial number, and model number in detail.
- 3. How to read list.



ELVMHEEL BLOCK #13

Ref. No. Parts No.

12-115x	800425	Flywheel Block Assy. Comp.	RDG #13
12-116	244506	Flywheel Only	RD 233
12-117x	244754	Felt, Flywheel	RD-275
12-118	251324	Main Metal Case	RD-236
12-119	253080	Main Metal	RD-237

Description

4. The symbol numbers shown on the P.C. Board list can be matched with the Composite Views of components of the Schematic Diagram or Service Manual.

Schematic No

- 5. The indications of Resistors and Capacitors in the photos of P.C. Board are being eliminated.
- 6. The shape of the parts and parts name, etc. can be confirmed by comparing them with the parts shown on the Electrical Parts Table of P.C. Board.
- 7. Both the kind of part and installation position can be determined by the Parts Number. To determine where a parts number is listed, utilize Parts Index at end of Parts List.
 - It is necessary first of all to find the Parts Number. This can be accomplished by using the Reference Number listed at right of parts number in the Parts Index. (meaning of ref. no. outlined in Item 3 above).
- 8. Utilize separate "Price List for Parts" to determine unit price. The most simple method of finding parts Price is to utilize the reference number.

CAUTION:

- 1. When placing an order for parts, be sure to list the parts no. model no., and description. There are instances in which if any of this information is omitted, parts cannot be shipped on the wrong parts will be delivered.
- 2. Please be careful not to make a mistake in the parts no. If the parts no. is in error, a partdifferent from the one ordered may be delivered.
- 3. Because parts number and parts unit supply in the Preliminary Service Manual (Basic Parts List) may be partially changed, please use this parts list for all future reference.

WARNING:

△ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLICE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMEMNED PARTS.

AVERTISSEMENT: A IL INDIQU LES COMPOSANTS CRITIQUES DE SURETE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT.

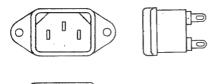
AC INLET SYSTEM

This model is equipped with an AC INLET SYSTEM. Please refer to the AC INLET SYSTEM CHART below for the specific type. By the AC INLET SYSTEM, AC (mains) cord can be connected to and disconnected from the model because the model is provided with socket exclusively for AC (mains) cord on its main body.

Please note, however, that certain models are not equipped with this system and has a built-in AC (mains) cord as before.

AC INLET SYSTEM CHART



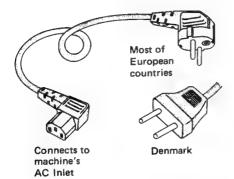


Picture 1 AC INLET to be installed on machines

Picture 2

AC (mains)





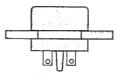
Australia differs according to wall socket

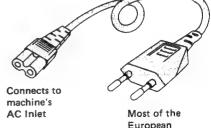
CLASS II

This mark indicating double insulation will be attached to machine's rear parrel









European countries



differs according to wall socket

Parts List for AC (mains) Cord Set

Standard		ard Description		Parts No.
	CEE	Cord Set CEE (3 cores)	3P	EW302993
	BEAB	Cord Set BEAB (3 cores)	3P	EW302994
Class I	SAA	Cord Set SAA (3 cores)	3P	EW302996
	U/T	Cord Set U/T (3 cores)	3P	EW302646
	CEE	Cord Set CEE (2 cores)	2P	EW638144
	BEAB	Cord Set BEAB (2 cores)	2P	EW30Z995
Class II	SAA	Cord Set SAA (2 cores)	2P	EW30Z991
	U/T	Cord Set U/T (2 cores)	2P	EW30Z899

1. RECOMMENDED SPARE PARTS LIST

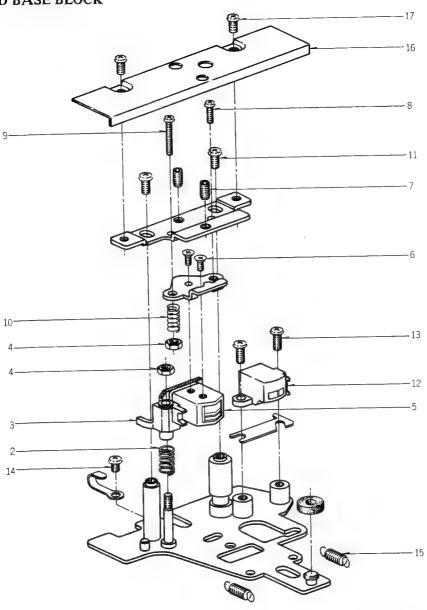
Because, if the parts listed below are on hand, almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

Parts No.	Description	Notes
BA323658	Pre Amp PCB Comp. UC-F5	
BA324095	Sys. Con PCB Comp. UC-F5 (CEE)	CEE, UK, SAA
BA324094	Sys. Con PCB Comp. UC-F5 (CSA)	CSA, AAL
BA324093	Sys. Con PCB Comp. UC-F5 (U/T)	U/T, JPN
BF324381	Flywheel Part UC-F5	
BH323630	Head Base BLK UC-F5	
BL326857	Pinch Roller Arm Assy UC-F5	
BM324427	Capstan Motor BLK W/Pulley UC-F5	
BM323629	Reel Motor BLK W/Pulley UC-F5	
BT324069	⚠ Power Trans. UCFT-1	U/T
BT324070	⚠ Power Trans. UCFT-2	JPN
BT324071	⚠ Power Trans. UCFT-3	CEE, UK, SAA
BT324072	⚠ Power Trans. UCFT-4	CSA, AAL
EC316184	Elect./C. (Vert.) 1000 μF 25WV	
EC315968	Elect./C. (Vert.) 1000 μF 6.3WV	
EC315964	Elect./C. (Vert.) 1000 μF 63WV	
EC316230	Elect./C. (Vert.) 2200 μF 35WV	
EC315966	Elect./C. (Vert.) 3300 μF 16WV	
ED308952	Germanium Diode 1K34A-LR	
ED324082	LED, 4 Figures 7 Segments SL-1406-20	
ED309357	Silicon Diode SVB15-100	
ED315960	Silicon Diode WL02	
ED306109	Silicon Diode W03B	
ED624903	Silicon Diode 1S2473	·
ED560913	Silicon Diode 1S2473 VE	
ED316143	Silicon Diode 1S2473-HS	
ED317594	Silicon Diode 1S2473HL	
ED313513	Thyristor SF0R1B41	
ED319176	Zener Diode HZ12A-3	
ED324013	Zener Diode HZ20-2	
ED313623	Zener Diode HZ22-3	
ED326139	Zener Diode HZ3A-3	
ED309069	Zener Diode HZ6B-2	
EF309392	↑ Fuse 1.25A 125V	CSA, AAL
EF306949	⚠ Fuse 1.25A 250V	U/T, JPN
EF306954	⚠ Fuse 2A 125V	CSA, AAL
EF306950	↑ Fuse 2A 250V	U/T, JPN
EF308848	Fuse 400mA 125V	CSA, AAL
EF309389	↑ Fuse 400mA 250V	U/T, JPN
EF300590	⚠ Fuse (EAWK) 400MAT	CEE, UK, SAA

Parts No.	Description	Notes
EF623103	⚠ Fuse (SEMKO T) 1AT	CEE, UK, SAA
EF601301	⚠ Fuse (SEMKO T) 2AT	CEE, UK, SAA
EF593706	⚠ Fuse (SEMKO T) 500MAT	CEE, UK, SAA
EI315799	IC HA12019	
EI322490	IC HD7401P	
EI306141	IC LA4170	
EI316170	IC LB1270	
EI308936	IC M54410P	
EI605013	IC NE545B	
EI633982	IC SN7400N	
EI323780	IC TC5054P	
EI324061	Mark Sensor NJL5146E	
EJ301513	⚠ Inlet 2P	CEE, UK, SAA
EJ324276	DIN Socket 8P TCS4680-01-111	
EJ316156	Head Phone Jack HLJ0315-01-020	
EJ321328	Jack HLJ0345-01-010	
EL317599	Lamp (Lead Type) 6.3V 100mA	
EM315859	Bar Meter FIP48CW16YS	
E0323789	OSC Coil 53T116	
EP324062	Plunger 0520FLT	
EP313497	Plunger 0730 PLTI	
EP324278	Plunger 1253PLTI	
EP308973	Relay LAB2NS DC24V	
ER311503	Cement/R. (Wire Wounded) 10W 20 ohms (K)	
ES315159	⚠Push SW. SDG1P (JPN)	JPN
ES665875	⚠Push SW. SDG1P-J TV-3 UL/CSA	CSA, AAL
ES665807	⚠Push SW. SDG5P-E 5A/80A 250V	U/T, CEE, UK, SAA
ES324063	Leaf SW. BSW-47P	
ES323786	Push SW. J-K2083	
ES324009	Push SW. SUF20	
ES324271	Rotary Slide SW. SRZR104	
ES324008	Rotary SW. SBU1024x01	
ES324007	Rotary SW. SRU1023S	
ES312050	Slide SW. CL-212K12A	
ES306430	Slide SW. J-S4013 #01	
ET301464	FET 2SK68 (M)(N)	
ET554657	Transistor 2SA733 (P)(Q)	
ET315958	Transistor 2SA854 (Q)(R)	
ET305463	Transistor 2SA970 (GR) (BL)	
ET666415	Transistor 2SB605 (K)(L)	

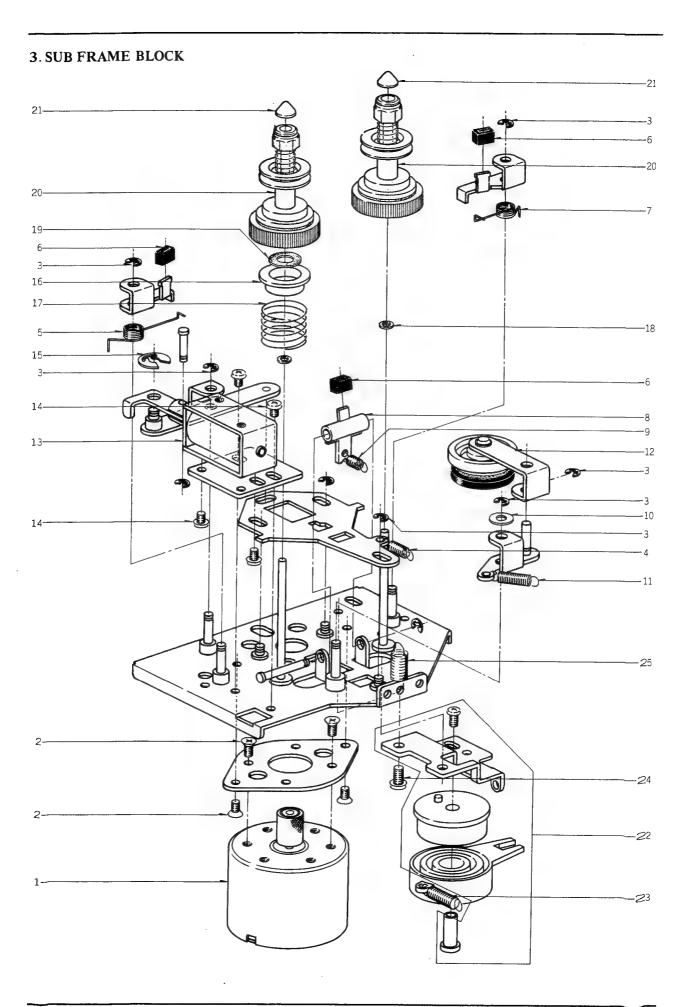
Parts No.	Description	Notes
ET327714	Transistor 2SB631K (F)	
ET312497	Transistor 2SC1061 (B)(C) YC-40B	
ET603257	Transistor 2SC1312S (G)(H)	
ET311832	Transistor 2SC1844 (E)	
ET308937	Transistor 2SC2130 (G)(H)	
ET308937	Transistor 2SC2130 (G)(H)	
ET309353	Transistor 2SC2274 (E)(F)	
ET308977	Transistor 2SC2274K (F)	
ET639437	Transistor 2SC945L (Q)(P)	
ET313514	Transistor 2SD386 (E)(F)	
ET666404	Transistor 2SD571 (K)(L)	
ET307349	Transistor 2SD794 (P)(Q)	
EV324396	Double-Axial 2-Throw/Vol. DM20R545A-50kAx2	
EV324397	Single-Axial 2-Throw/Vol. GN20R522-10kBx2	
EW306427	⚠ AC Cord (JPN)	
EW306428	▲ AC Cord (U/T)	
EW305691	▲ AC Cord CUL	CSA, AAL
EW322400	⚠ AC Cord Set Basec 2 Cores	UK
EW315767	⚠ AC Cord Set CEE 2 Cores	CEE
EW322401	⚠ AC Cord Set SAA 2 Cores	SAA
HE321585	Erase Head HF213151	
HP319079	REC/PB Head PR4-7	
MB323681	Capstan Belt	
MB323686	Detection Belt	
MI309414	Idler Part	
MT312122	Reel Table Part GXC-715D	
MV309146	Main Case	

2. HEAD BASE BLOCK



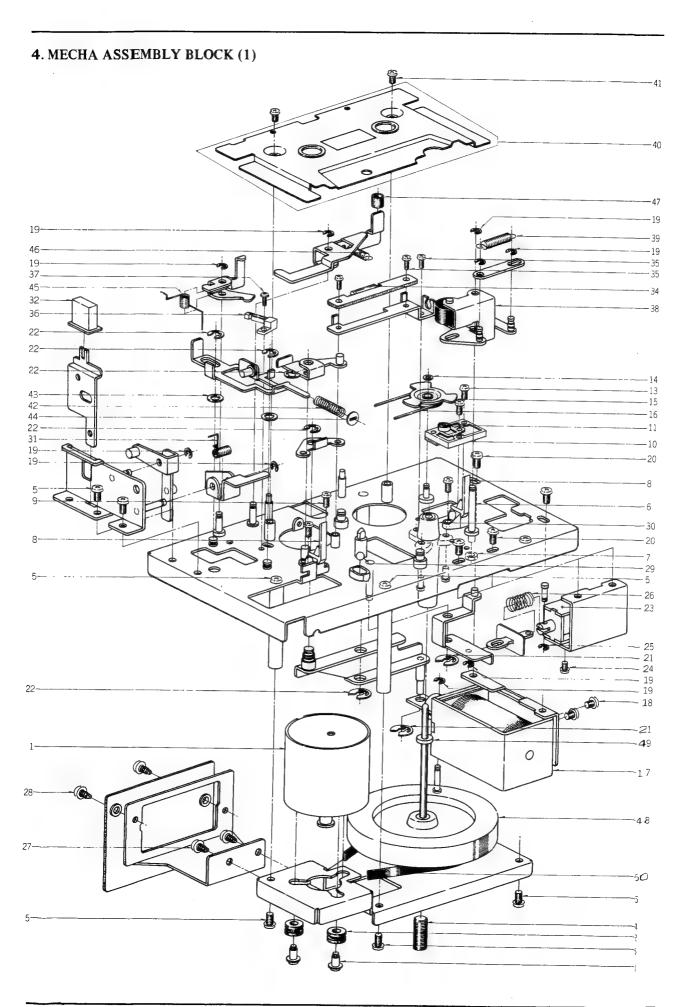
HEAD BASE BLOCK

Ref. No.	Parts No.	Description	Schematic No.
2-1 x	BH323630	Head Base BLK UC-F5	
2-2	ZG289236	Tape Guide Spring	CM-0005
2-3	HZ309128	Tape Guide	CF-0006
2-4	ZW591265	Nut M2.3, #3	
2-5	HP319079	REC/PB Head PR4-7	
2-6	ZS524812	Screw, Countersunk 2×4	
2-7	ZS356804	Set Screw, Hexagon Socket	
		3x4 (CUP/	P.)
2-8	ZS590804	Screw, pan 2.3x6	
2-9	ZS462947	Screw, pan 2.3x12	
2-10	ZG465636	Angle Adjust Spring	CG-0029
2-11	ZS419782	Screw, bind 2.6×5	
2-12	HE321585	Erase Head HF213151	37-2-33
2-13	ZS464692	Screw, bind 2.3×6	
2-14	ZS417161	Screw, pan 2.3x4	
2-15	ZG323715	P Spring	UCF-1548
2-16	TC323725	Head Decoration Plate	€JCF-1557, 1558
2-17	ZS267254	Screw, pan 2.3x4 (Black)	



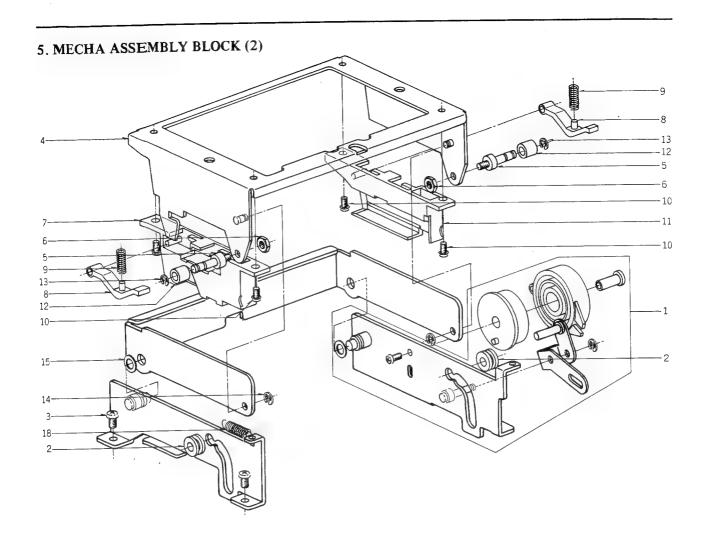
SUB FRAME BLOCK

Ref. No.	Parts No.	Description	Schematic No.
	REEL MOTO	OR BLOCK	
3-1	BM323629	Reel Motor BLK W/Pulley UC-F5	UCF-7002
3-2	ZS430413	Screw, Countersunk 2.6×4	
	SUB FRAM	E BLOCK	
3-3	ZW270088	'E' Ring 1.9M	6-1-9
3-4	ZG365433	Idler Tension Spring	RCC-1365
3-5	ZG309225	Brake Spring (L)	CF-2022
3-6	MB282104	Brake Rubber	CN-1020
3-7	ZG309226	Brake Spring (R)	CF-2023
3-8	ML309229	Pad Lever	CF-2035
3-9	ZG469315	Take-up Lever Spring	CG-1091
3-10	ZW432753	Washer (PBP) D3.1×8×0.2t	
3-11	ZG322048	Idler Spring (B)	CX-1105
3-12	MI309414	Idler Part	13-2-42
3-13	EP313497	Plunger 0730PLTI	44-I-108
3-14	ZS592378	Screw, pan 2.6×3	
3-15	ZW290283	'U' Ring 2.85M	6-1-1
3-16	TC317433	Torque Drum	CU-2010
3-17	ZG323736	Back Tension Spring	UCF-2502
3-18	ZW381644	Washer (Polyslider)	
		D2.1×4.0×0.13t	
3-19	ZW322912	Oil Washer	CU-2013
3-20	MT312122	Reel Table Part GXC-715D	13-2-41
3-21	MT305793	Reel Cap	CF-2039
3-22	TC323627	Clutch Bracket Assy	UCF-2503
3-23	ZG313001	Coil Spring T1-4.0/0.4-22.4	
3-24	ZS417216	Screw, pan 3x4	
3-25	ZG595506	Stop Spring	CH-3007



MECHA ASSEMBLY BLOCK (1)

Ref. No.	Parts No.	Description	Schematic No.					
CAPSTAN MOTOR BLOCK								
4-1	BM324427	Capstan Motor BLK W/Pulley UC-F5	UCF-7001					
4-2	MB282778	Rubber Bush	CN-7003					
4-3	ZS321338	Motor Screw	7-1-75					
4-4	ZS302318	Hold Screw	CI-1258					
	MECHA ASS	SEMBLY BLOCK						
4-5	ZS422076	Screw, pan 3x5						
4-6	MS309141	Pinch Roller Lever Shaft	CF-1011					
4-7	ZW590207	Nut M3 #3						
4-8	TC309145	Cassette Guide	CF-1015					
4-9	ZS479474	Screw, pan 2.6×5						
4-10	TC323621	Detection Base Assy	UCF-1573					
4-10	E1324061	Mark Sensor NJL5146E	45-18-2					
	ZS609074	Tapping Screw, #2 pan 2×5	10 10 2					
4-12x	ZS537085	Screw, bind 2×5						
4-13	ZW321437	Push Washer	CE-1077					
4-14		Detection Pulley	UCF-1519					
4-15	MR323683	Detection Funey Detection Belt	UCF-1521					
4-16	MB323686		44-1-128					
4-17	EP324278	Plunger 1253PLTI	44-1-120					
4-18	ZS324374	Screw, pan 3x3.5 (Blue)	610					
4-19	ZW270088	'E' Ring 1.9M	6-1-9					
4-20	ZS323728	Screw, bind 3×5						
4-21	ZW290283	'U' Ring 2.85M	6-1-1					
4-22	ZW270101	'E' Ring 3M	6-1-9					
4-23	EP324062	Plunger 0520FLT	44-1-129					
4-24	ZS477876	Screw, pan 2×3						
4-25	ZW356657	'E' Ring 1.5M	6-1-9					
4-26	ZG370350	Reel Table Spring	RCC-1344					
4-27	ZS325495	Tapping Screw, #2 BR 3x6						
4-28	ZS447840	Tapping Screw, #2 BR 3x8						
4-29	MV269965	Steel Ball D4						
4-30	MV309146	Main Case	CY-1042					
4-31	ZG323699	Eject Lock Spring	UCF-1532					
4-32	SB323696	Button (A)	UCF-1530					
4-33x	SB323697	Button (A-BL)	UCF-1530					
4-34	EL317599	Lamp (Lead Type) 6.3V	28-2-80					
		100mA						
4-35	ZS608095	Screw, pan 2×5	AP 10 11					
4-36	ES324063	Leaf SW. BSW-47P	25-10-41					
4-37	ZS464703	Screw, bind 2×4						
4-38	BL326857	Pinch Roller Arm Assy UC-F5						
			UCF-1547					
4-39	ZG323714	Pinch Roller Spring	UCF-1547					
4-40	TC324289	Decoration Plate Part UC-F5	UCF-1301					
4-41	ZS318208	Screw, Truss 2.3x4 (Black)	UCF-1567					
4-42	ZG324400	Slide Spring	OCL-1901					
4-43	ZW322525	Washer (PBP) D4.1×7×0.2t	UCF-1566					
4-44	ZW323734	Stop Washer						
4-45	ZG323702	REC Safety Spring	UCF-1535					
4-46	ZG312964	Coil Spring T1-3.2/0.45-18.0	HCE-1564					
4-47	TC324401	Cassette Holder Cap	UCF-1564					
4-48	BF324381	Flywheel Part UC-F5	UCF-1515					
4-49	ZW309295	Thrust Washer	CY-1037 UCF-1517					
4-50	MB323681	Capstan Belt	OCL_1911					



MECHA ASSEMBLY BLOCK (2)

Ref. No.	Parts No.	Description	Schematic No.
	EJECT BAS	E (R) BLOCK	
5-1	BZ323633		UCF-1571
	MECHA AS	SEMBLY BLOCK	
5-2	MB282778	Rubber Bush	CN-7003
5-3	ZS422076	Screw, pan 3x5	
5-4	TC324298	LID Frame Part UC-F5	UCF-1551
5-5	MH323720	Eject Roller Prop	UCF-1552
5-6	ZW590207	Nut M3 #3	
5-7	TC317454	Cassette Holder (A)	CU-3016
5-8	TC309206	Setting Shoe	CF-1072
5-9	ZG313165	Coil Spring C-3.5/0.32-10.0	
5-10	ZS608185	Screw, pan 2.6x4 (Black)	
5-11	TC317455	Cassette Holder (B)	CU-3017
5-12	MR323722	Eject Roller	UCF-1554
5-13	ZW357164	E' Ring 2.3M	6-1-9
5-14	ZW270088	'E' Ring 1.9M	6-1-9
5-15	ZW322525	Washer (PBP) D4.1×7×0.2t	
5-16x	ZW649991	Washer (PBP) D4.1×7×0.3t	
5-17x	ZW589893	Washer (PBP) D4.1×7×0.4t	
5-18	ZG312999	Coil Spring T1-4.0/0.4-20.0	

6. SYS. CON P.C BOARD (UCF-5502A) BLOCK

Symbol No.	Parts No.	Description	Schematic No.	Symbol No.	Parts No.	Description	Schematic No.
6-1	BA324093	Sys. Con PCB Comp. UC-F5 (U/T) (U/T,JPN)	UCF-5502A	6-D60,61 6-D62	ED560913 ED306109	Silicon Diode 1S2473VE Silicon Diode W03B	45-3-23 45-2-78
6-2	BA324094	Sys. Con PCB Comp.UC-F5 (CSA) (CSA,AAL)	UCF-5502A	6-D63to67 6-D68	ED560913 ED308952	Silicon Diode 1S2473VE Germanium Diode	45-3-23 45-3-47
6-3	BA324095	Sys. Con PCB Comp.UC-F5 (CEE) (CEE,UK,SAA)	UCF-5502A	6-D69,70	ED560913	1K34A-LR Silicon Diode 1S2473VE	45-3-23 45-6-80
6-IC1	E1308936	IC M54410P	45-8-304	6-D71	ED319176	Zener Diode HZ12A-3	45-3-53
6-IC2,3	EI633982	IC SN7400N	45-8-142	6-D72	ED316143	Silicon Diode 1S2473-HS	45-6-80
6-IC4to6	EI322490	IC HD7401P	45-8-409	6-D73	ED326139	Zener Diode HZ3A-3 Silicon Diode 1S2473	45-3-28
6-IC7	EI316170	IC LB1270	45-8-369	6-D74	ED624903	Silicon Diode 1S2473VE	45-3-23
6-TR1	ET313514	Transistor 2SD386(E)(F)	45-1-352	6-D75,76 6-SW1-2	ED560913 ES324009	Push SW. SUF20	25-5-352
6-TR2	ET308937	Transistor 2SC2130(G)(H)	45-1-317		EV321682	Semi-Fixed/Vol. D8 Axial	36-10-280
6-TR3	ET305463	Transistor 2SA970	45-1-303	6-VR2	EV 321 002	500 ohms B	00 10 100
6-TR4to6	ET312497	(GR)(BL) Transistor 2SC1061 (B)(C) YC-40B	45-1-96	6-SCR1 6-R1	ED313513 ER312487	Thyristor SF0R1B41 Metal Oxide Film/R. 2W	45-13-4 35-15-8
6-TR7	ET554657	Transistor 2SA733(P)(Q)	45-1-124			2.2k (K)	
6-TR8to23		Transistor 2SC945L(Q)(P)	45-1-85	6-R6	ER319177	Metal Film/R. F 2W	35-19-7
6-TR24	ET666404	Transistor 2SD571(K)(L)	45-1-218			3.3 ohms (J)	
6-TR25	ET554657	Transistor 2SA733(P)(Q)	45-1-124	6-R85	ER324081	Metal Oxide Film/R.	35-15-8
6-TR26,27		Transistor 2SD571(K)(L)	45-1-218			F 2W 39 ohms (K)	04 10 40
6-TR28,29		Transistor 2SA854(Q)(R)	45-1-326	6-C1	EC315964	Elect./C. (Vert.) 1000µF	24-12-46
6-TR30	ET666404	Transistor 2SD571(K)(L)	45-1-218			63WV	01 10 10
6-TR31	ET307349	Transistor 2SD794(P)(Q)	45-1-334	6-C6	EC315966	Elect./C. (Vert.) 3300µF	24-12-46
6-TR32,33	ET639437	Transistor 2SC945L(Q)(P)	45-1-85			16WV	04 10 46
6-TR34	ET308937	Transistor 2SC2130(G)(H)	45-1-317	6-C8	EC315968	Elect./C. (Vert.) 1000µF	24-12-46
6-TR35	ET666415	Transistor 2SB605(K)(L)	45-1-225			6.3WV	24-12-46
6-TR36	ET308937	Transistor 2SC2130(G)(H)	45-1-317	6-C9	EC316230	Elect./C. (Vert.) 2200µF	24-12-40
6-TR37	ET309353	Transistor 2SC2274(E)(F)	45-1-335		EG944494	35WV	24-12-46
6-TR38	ET639437	Transistor 2SC945L(Q)(P)	45-1-85	6-C12	EC316184	Elect./C. (Vert.) 1000μF 25WV	24-12-40
6-TR39	ET308937	Transistor 2SC2130(G)(H)	45-1-317		EC209040	NP/C. 0.47μF(M) 50WV	24-17-31
6-TR40	ET327714	Transistor 2SB631K(F) Transistor 2SC2130(G)(H)	45-1-277 45-1-317	6-C25,26	EC308940 EC324076	NP/C. 10μF(M) 10WV	24-17-31
6-TR41	ET308937	Transistor 2SC2130(G)(H) Transistor 2SD571(K)(L)	45-1-218	6-C52,53 6-4	ZS421806	Screw, pan 3x8	
6-TR42	ET666404	Transistor 2SC1061(B)(C)	45-1-96	6-5	ZW273756		
6-TR43	ET312497	YC-40B	40 1 00	6-6	ZW563218		
c TD44to	49 ET639437		45-1-85			D3.2×10×1t	
6-TR50	ET309353		45-1-335	6-7	ZS379350	Screw, pan 3x6	
6-TR51	ET308937		45-1-317				
6-TR52	ET666415		45-1-225				
6-TR53	ET308937	Transistor 2SC2130(G)(H)	45-1-317				
6-TR54	ET309353		45-1-335				
6-TR55to	59 ET639437	Transistor 2SC945L(Q)(P)	45-1-85				
6-TR60	ET554657	Transistor 2SA733(P)(Q)	45-1-124				
6-TR61,6			45-1-85 45-2-83				
6-D1	ED309357		45-2-78				
6-D2	ED306109		45-3-47				
6-D3	ED308952	1K34A-LR					
4 D4	ED309357		45-2-83				
6-D4	ED309357		45~6~80				
6-D5 6-D6	ED315960	m	45-2-93				
6-D7	ED306109	ma 4 1110 0 D	45-2-78				
6-D8	ED313623	Zener Diode HZ22-3	45~6~80				
6-D9	ED324013		45-6-80				
6-D10to1	4 ED560913		45-3-23				
6-D15	ED317594		45-3-60				
6-D16,17	ED560913	Silicon Diode 1S2473VE	45-3-23				
6-D18	ED316143	THE RESERVE TO A SECOND TO SECOND THE PERSON OF THE PERSON	45-3-53				
6-D19,20	ED560913		45-3-23 45-3-47				
6-D21to3		1K34A-LR	45-6-80				
6-D31	ED309069		45-6-80				
6-D32	ED319170 0 ED560913		45-3-23				
6-D33to4	ED306109		45-2-78				
6-D41 6-D42	ED306109	TIC ACCOUNT TO	45-3-53				
6-D42 6-D43to4			45-3-23				
6-D48to5		3 Silicon Diode 1S2473VE	45-3-23				
6-D55	ED317594	4 Silicon Diode 1S2473HL	45-3-60				
6-D56	ED56091	3 Silicon Diode 1S2473VE	45-3-23				
6-D57	ED308952	2 Germanium Diode	45-3-47				
		1K34A-LR	45 0 00				
6-D58	ED560913	4 705-47	45-3-23 45-2-79				
6-D59	ED306109	9 Silicon Diode W03B	45-2-78				

7. PRE AMP P.C BOARD (UCF-5501A) BLOCK

		•	
Symbol No.	Parts No.	Description	Schematic No.
7-1	BA323658	Pre Amp PCB Comp. UC-F5	UCF-5501A
7-IC1	EI605013	IC NE545B	45-8-117
7-IC2	EI306141	IC LA4170	45-8-305
7-TR1	ET311832	Transistor 2SC1844(E)	45-1-327
7-TR2	ET603257	Transistor 2SC1312S(G)(H)	45-1-182
7-TR3to8	ET639437	Transistor 2SC945L(Q)(P)	45-1-85
7-T R9	ET301464	FET 2SK68(M)(N)	45-12-14
7-TR10,11	ET639437	Transistor 2SC945L(Q)(P)	45-1-85
7-TR12,13		Transistor 2SC2274K(F)	45-1-335
7-TR14	ET307349	Transistor 2SD794(P)(Q)	45-1-334
7-TR15	ET639437	Transistor 2SC945L(Q)(P)	45-1-85
7-D1	ED308952	Germanium Diode	45-3-47
		1K34A-LR	
7-D2	ED560913	Silicon Diode 1S2473 VE	45-3-23
7-D3,4	ED308952	Germanium Diode	45-3-47
		1K34A-LR	
7-D5to10	ED560913	Silicon Diode 1S2473 VE	45-3-23
7-SW1	ES312050	Slide SW. CL-212K12A	25-3-163
7-SW2	ES323786	Push SW. J-K2083	25-5-351
7-SW3	ES324271	Rotary Slide SW. SRZR104	25-6-185
7-VR1	EV324366	Semi-Fixed/Vol. V10K8-1-2	36-10-255
7- 7-22	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	BloK	
7-V R2	EV306737	Semi-Fixed/Vol. V10K8-1-2 50kB	36-10-255
7-VR3	EV315412	Semi-Fixed/Vol. D8 Axial	36-10-280
7-V R4	EV322416	5kB Semi-Fixed/Vol. D8 Axial	36-10-280
7-VR5	EV322366	30kB Semi-Fixed/Vol. D10 Axial	36-10-281
7-VR6,7	EV322416	300kB Semi-Fixed/Vol. D8 Axial	36-10-280
7-VR8	EV315414	30kB Semi-Fixed/Vol. D8 Axial	36-10-280
7- V R9	EV324396	20kB Double-Axial 2-Throw/Vol.	36-18-21
	TDeece and	DM20R545A-50kA×2	47-2-30
7-RL1	EP308973	Relay LAB2NS DC24V Vari. Inductor FE-002	23-1-333
7-L1	EO321336	10MH	29-1-333
7-L2	EO321295	Ferri Inductor RC875 4.7MH (J)	23-1-335
7- T 1	EO323789	OSC Coil 53T116	23-4-57
7-FL1	ER309120	Dolby Filter D07-003	53-1-143
7-FL2	ER309119	Dolby Filter D07-001	53-1-143
7-FL3	EQ315758	Trap Coil 100S-431	23-1-331
7- F L4	EO323790	Trap Coil 100S-821	23-1-404
7-J 1	EJ323788	Pin Jack 4P	31-5-162
7-R30	ER301441	Metal Oxide Film/R. 2W	35~15~8
7-R88,89	ER327441	330 ohm (J) Metal Oxide Film/R, F 1W	35-19-1
7- R 98	ER409814	4.7 ohms (J) Metal Oxide Film/R. 2W	35-15-8
		220 ohm (K)	
7-C4	EC305679	Styrol/C. 820PF(K) 50WV	24-11-14
7-C8	EC306986	Styrol/C. 220PF(K) 50WV	24-11-14
7-C9	EC307258	Styrol/C. 330PF(K) 50WV	24-11-14
7-C14	EC305677	Styrol/C. 200PF(K) 50WV	24-11-14
7-C41	EC321066	Solid Aluminum/C. 0.15μF(K) 25WV	24-19-3
7-C50,51	EC324272	Polypropylene/C. 0.0091µF(G) 100WV	24-22-12
7-C52	EC324274	Polypropylene/C. 0.0075µF(G) 100WV	24-22-12
7-C53	EC324275	Polypropylene/C. 0.0068μF(G) 100WV	24-22-12
7-C57	EC324402	Styrol/C. 1000PF(J) 500WV	24-11-17
7-C67,68 7-2	EC324005 ZS356804	Styrol/C. 680PF(K) 50WV Set Screw, Hexagon Socket 3x4 (CUP/P.)	24-11-14
7-3	ZS422076	Screw, pan 3x5	

8. BAR METER P.C BOARD (CE-5209) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
8-IND1	EM315859	Bar Meter FIP48CW16YS	53-1-175
8-IC1,2	EI315799	IC HA12019	45-8-366

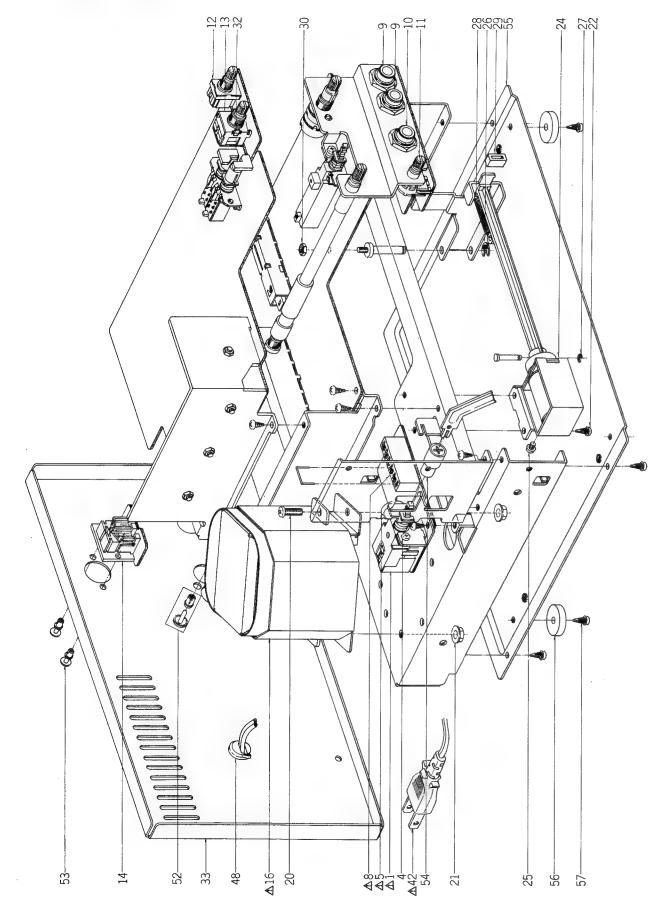
9. COUNTER P.C BOARD (UCF-6501) BLOCK

Symbol No.	Parts No.	Description	Schematie No.
9-IC1	EI323780	IC TC5054P	45-8-406
9-TR1to4	ET639437	Transistor 2SC945L(Q)(P)	45-1-85
9-IND1	ED324082	LED, 4 Figures 7 Segments	59-2-1
		SL-1406-20	

10. MECHA P.C BOARD (UCF-1563) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
10-L1,2	EO669273	Inductor FL5R-200	23-1-248
10-R1	ER320337	Cement/R. 5W 22 ohms(K)	35-16-80
10-C3	EC321068	NP/C. 47μF(M) 6.3WV	24-17-31

11. AMP CHASSIS BLOCK



AMP CHASSIS BLOCK	AMP	CHA	SSIS	BL	OCK
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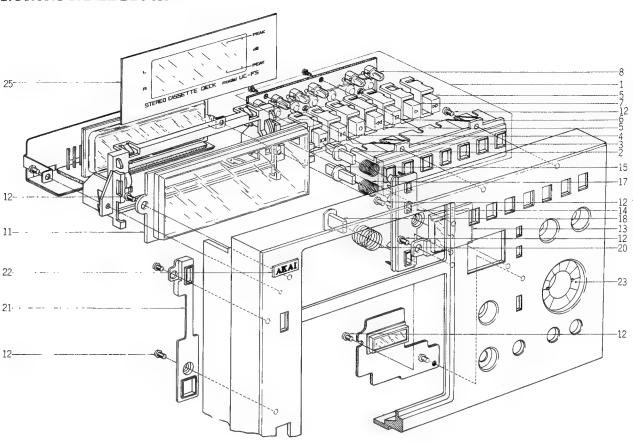
Ref. No.	Parts No.	Description	Schematic No.	Ref. No.	Parts No.	Description
1-1	POWER SW. ES665807	P.C BOARD BLOCK A Push SW. SDG5P-E 5A/80A	25-5-182	11-51x	ZS463353	Tapping Screw, #2 BR 3×8 (Black) (CEE,UK,SAA)
	E0015150	250V (U/T,CEE,UK,SAA)	05 5 220	11-52	ZW263946	Nylon Rivet 4x5
1-2x 1-3x	ES315159 ES665875	↑ Push SW. SDG1P (JPN) ↑ Push SW. SDG1P-J TV-3	25-5-330 25-5-199	11-53	ZW231030	Nylon Rivet (NRB) 3x4.5 (Black)
11-4	ZS422076	UL/CSA (CSA,AAL) Screw, pan 3x5			FINAL ASS	EMBLY BLOCK
1-5	EC321302	⚠ Ceramic/C. E 0.01µF(Z)	24-5-90	11-54	TC289484	SW. Joint
	T.C	250VAC (U/T,JPN)		11-55	SP323769	Bottom Plate
11-6x	EC314688	Λ Ceramic/C. DE7150 FZ 0.01μF(P) 125WV(CSA,AAL)	24-5-87	11-56 11-57	SA324129 ZS490228	Foot Tapping Screw, #2 bind 3x8
11-7x	EC327382	MP/C. (Vert.) 0.0047μF(M) 250WV (CEE,UK,SAA)	24-9-134			
11-8	MZ283140	△ Voltage Changer 12M-60031 (U/T)	40-2-13			
	JACK P.C B	OARD BLOCK				
11-9	EJ321328	Jack HLJ0345-01-010	31-2-110			
11-10	EJ316156	Head Phone Jack	31-2-106			
1-11	EV324397	HLJ0315-01-020 Single-Axial 2-Throw/Vol. GN20R522-10kBx2	36-7-17			
	SW. P.C BOA	ARD BLOCK				
11-12	ES324007	Rotary SW. SRU1023S	25-6-186			
11-13	ES324008	Rotary SW. SBU1024X01	25-6-187			
	REMO CON	P.C BOARD BLOCK				
11-14	EJ324276	DIN Socket 8P	31-5-156			
		TCS4680-01-111				
l 1-15x	ZS447840	Tapping Screw, #2 BR 3×8				
11-16	BT324069	⚠ Power Trans. UCFT-1(U/T)	38-4-768			
11-17x	BT324070	⚠ Power Trans. UCFT-2(JPN)	38-4-769			
	BT324071	↑ Power Trans. UCFT-3 (CEE,UK,SAA)	38-4-770			
l 1-19x	BT324072	↑ Power Trans. UCFT-4 (CSA,AAL)	38-4-771			
1-20	ZS413234	Screw, pan 4×12				
11-21	ZW413267	Flange Nut M4				
l 1-22 l 1-23x	ZS325495 ER311503	Tapping Screw, #2 BR 3×6 Cement/R. (Wire Wounded) 10W 20 ohms (K)	35-16-89			
1-24	EP324395	Plunger 1037TLTI	.44-1-132			
1-25	ZS324374	Screw, pan 3x3.5 (Blue)				
1-26	ZW290283	'U' Ring 2.85M	6-1-1			
1-27	ZW270088	E' Ring 1.9M	6-1-9			
1-28	ZG313044	Coil Spring T1-5.0/0.55-22.4	TT 0000			
	MB668801	Stopper Rubber TE (B)	TE-2039			
	ZW516993 ZS306486	Nut, #1 M3 Tapping Screw, #2, BR 3×8 W/Washer				
1-32	MZ323757	SW. Joint	UCF-5514			
	SP323760	Rear Panel (U/T)	UCF-5522			
	SP323766	Rear Panel (JPN)	UCF-5518			
	SP323762	Rear Panel (CSA)	UCF-5517			
1-36x	SP323765	Rear Panel (AAL)	UCF-5516			
1-37x	SP323767	Rear Panel (CEE,UK,SAA)	UCF-5519			
1-38x	SP323761	Rear Panel (U/T-BL)	UCF-5522			
1-39x	SP323764	Rear Panel (CSA-BL)	UCF-5517			
	SP323768	Rear Panel (CEE,UK,SAA-BL)	UCF-5519			
	ZS447761	Tapping Screw, #2 BR 3x6 (Black)				
	EW306428	A AC Cord (U/T)	26-3-64			
	EW306427	A AC Cord (JPN)	26-3-63			
	EW305691 EW315767	△ AC Cord CUL (CSA,AAL) △ AC Cord Set CEE 2 Cores	26-3-65 26-3-72			
1-46x	EW322400	(CEE) AC Cord Set BASEC 2 Cores (UK)	26-3-73			
1-47x	EW322401	AC Cord Set SAA 2 Cores (SAA)	26-3-77			
1-48	EZ631945	Strain Relief SR-4N-4	2-7-49			
	EJ301513	⚠ Inlet 2P (CEE,UK,SAA)	31-1-200			
1 50	ES306430	Slide SW. J-S4013 #01	25-3-142			

2-7-57 2-7-54

CM-6015 UCF-5520

UCF-5521

12. FRONT PANEL BLOCK

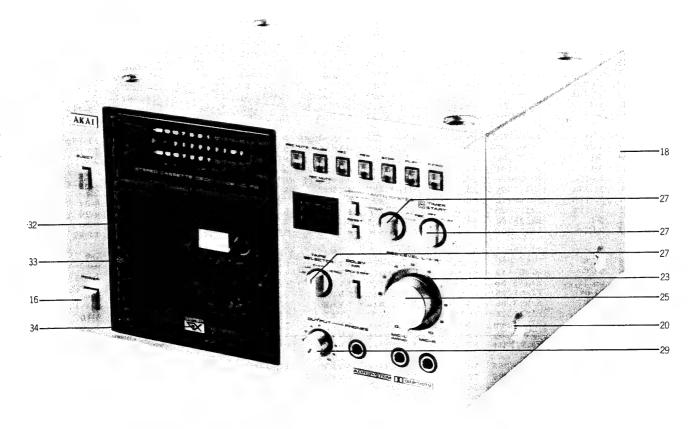


FRONT PANEL BLOCK

Ref. No.	Parts No.	Description	Schematic No.
	OPERATIO	N BLOCK	
12-1	BK324288	Operation BLK UC-F5	25-5-353
12-2	SB324279	Operation Button (REC MUTE)	25-5-353
12-3	SB324280	Operation Button (PAUSE)	25-5-353
12-4	SB324282	Operation Button (REC)	25-5-353
12-5	SB324283	Operation Button (FF,RWD)	25-5-353
12-6	SB324284	Operation Button (STOP)	25-5-353
12-7	SB324285	Operation Button (PLAY)	25-5-353
12-8	EL324286	Lamp 24V 500mA	25-5-353
	FRONT PAR	NEL BLOCK	
12-9x	BD323613	Front Panel BLK UC-F5	
12-10x	BD323614	Front Panel BLK UC-F5-BL	
12-11	SZ324032	Meter Window	UCF-6508
12-12	ZS379405	Screw, bind 3×6	
12-13	SZ324031	Counter Filter	UCF-6507, 6527
12-14	SE323777	SW. Escutcheon	UCF-6504
12-15	SB323778	Button (C)	UCF-6505
12-16x	SB323779	Button (C-BL)	UCF-6505
12-17	ZG494403	Return Spring	CG-1204
12-18	SB323309	Button (B)	UCA~5008
12-19x	SB323310	Button (B-BL)	UCA-5008
12-20	ZG323312	Spring (B)	UCA-5010
12-21	SE324030	Escutcheon	UCF-6506
12-22	SM323339	Name Plate	A0565
12-23	SZ324122	Decoration Ring	UCF-6512, 6513
12-24x	SZ324124	Decoration Ring (BL)	UCF-6512, 6513
12-25	SZ324035	Meter Filter	UCF-6510, 6511

--- When ordering parts, please quote Parts Number, Description and Model Number. --

13. FINAL ASSEMBLY BLOCK



FINAL ASSEMBLY BLOCK

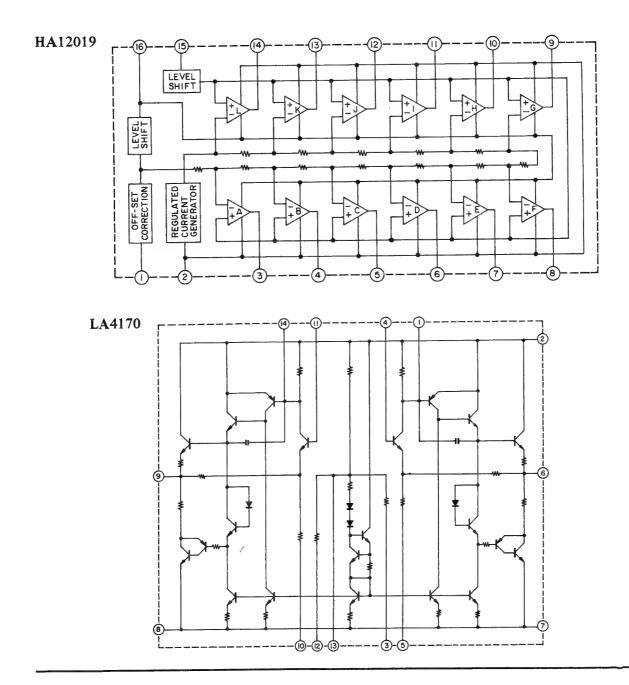
Ref. No.	Parts No.	Description	Schematic No.	Ref. No.	Parts No.	Description	Schematic No.
13-1x	ZS447840	Tapping Screw, #2 BR 3×8		13-18	BC324052	Upper Cover	UCF-6524
13-1X 13-2X	ZS323728	Screw, bind 3×5		13-19x	BC324053	Upper Cover (BL)	UCF-6524
13-2x 13-3x	ZS422076	Screw, pan 3x5		13-20	ZS315878	S-Tight Screw, bind 4x8	
13-3x 13-4x	ZS558101	Screw, pan 3x6 W/Washer		13-21x	ZS310588	S-Tight Screw, bind 4×8	
13-4x 13-5x	ZS325495	Tapping Screw, #2 BR 3×6				(Black)	
13-5x 13-6x	EF593706	↑ Fuse (SEMKO T) 500MAT	39-1-53	13-22x	ZS463353	Tapping Screw, #2 BR 3×8	
13-0x	EF 393700	(CEE,UK,SAA)				(Black)	
13-7x	EF306949	↑ Fuse 1.25A 250V (U/T,JPN)	39-1-64	13-23	SK323704	Double Knob (Lower-A) UC-F5	UCF-6520
40.0-	EF306950	⚠ Fuse 2A 250V (U/T,JPN)	39-1-64	13-24x	SK324047	Double Knob (Lower-A-BL)	UCF-6520
13-8x	EF309389	A Fuse 400mA 250V	39-1-64	102	51102.0	Part UC-F5-BL	
13-9x	EF 30 7 3 0 7	(U/T,JPN)		13-25	SK324210	Double Knob (Upper) Part	UCF-6521
12 10-	EF309392	⚠ Fuse 1.25A 125V	39-1-65	10 20	21102 1210	UC-F5	
13-10X	EF309392	(CSA,AAL)	00 1 00	13-26x	SK324211	Double Knob (Upper-BL) Part	UCF-6521
40 44	EE206064	↑ Fuse 2A 125V (CSA,AAL)	39-1-65	10 2011	·	UC-F5-BL	
	EF306954	⚠ Fuse 400mA 125V	39-1-65	13-27	SK323770	Knob (A) Part UC-F5	UCF-6522
13-12X	EF308848	(CSA,AAL)		13-28x		Knob (A-BL) Part UC-F5-BL	UCF-6522
	EE/02102	↑ Fuse (SEMKO T) 1AT	39-1-53	13-29	SK324291	Knob (B) Part UC-F5	UCF-6523
13-13x	EF623103	(CEE,UK,SAA)	00 1 00	13-30x		Knob (B-BL) Part UC-F5-BL	UCF-6523
40.44	EE(01201	↑ Fuse (SEMKO T) 2AT	39-1-53	13-31x		Lid Panel	UCF-6516,6517
13-14X	EF601301	(CEE,UK,SAA)	00 1 00	13-32	SZ324042	Lid Window	UCF-6518
	FFOOGO	↑ Fuse (EAWK) 400MAT	39-1-60	13-33	ZS324043	Decoration Screw	UCF-6519
13-15X	EF300590	(CEE,UK,SAA)	32-1 00	13-34	SM315737	Super GX Name Plate	CF-6236
	GD004000		UCF-6515	13-35x		Pop Rivet D3.2	7-6-9
13-16	SB324039	Button (B)	-	15.554			• •
13-17x	SB324040	Button (B-BL)	UCF-6515				

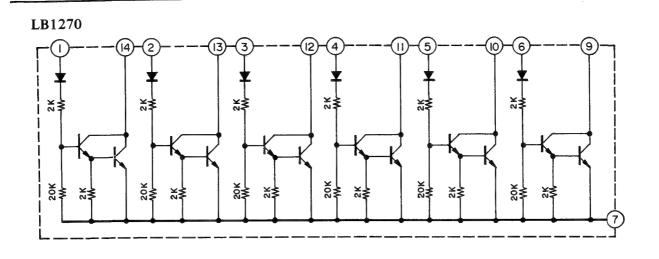
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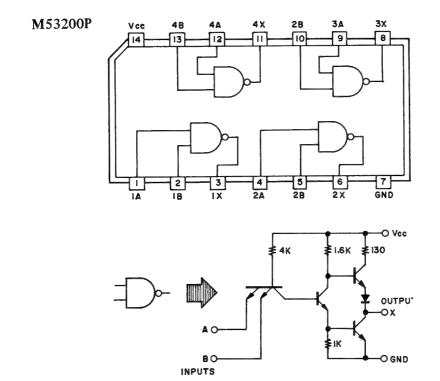
Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.
D. 1.00 (00		ED560913	7-D2	ET313514	6-TR1	SK324047	13-24x	ZS419782	2-11
BA323658	7-1	ED560913	7-D2 7-D5to10	ET315958	6-TR28,29	SK324210	13-25	ZS421806	6-4
BA324093	6-1		6-D74	ET327714	6-TR40	SK324211	13-26x	ZS422076	4-5
BA324094		ED624903		ET554657	6-TR7	SK324290	13-28x	ZS422076	5-3
BA324095	6-3	EF300590	13-15x		6-TR25	SK324290 SK324291	13-26x	ZS422076	7-3
BC324052	13-18	EF306949	13-7x	ET554657	6-TR60	SK324291 SK324293	13-29 13-30x	ZS422076	11-4
BC324053	13-19x	EF306950	13-8x	ET554657	7-TR2	SM315737	13-302	ZS422076	13-3x
BD323613	12-9x	EF306954	13-11x	ET603257		SM313737	12-22	ZS430413	3-3x 3-2
BD323614		EF308848	13-12x	ET639437	6-TR8to23 6-TR32,33	SP323760	11-33	ZS447761	3-2 11-41
BF324381	4-48	EF309389	13-9x	ET639437 ET639437	6-TR32,33	SP323761	11-33 11-38x	ZS447761 ZS447840	4-28
BH323630	2-1 x	EF309392	13-10x	£1639437	0-11/20	31323761	11-30X	2544/640	4-20
DIVAGAGGG	10.1	EF593706	13-6x	ET639437	6-TR44to49	SP323762	11-35x	ZS447840	11-15x
BK324288		EF601301	13-14x	ET639437	6-TR55to59	SP323764	11-39x	ZS447840	13-1x
BL326857	4-38	EF623103	13-13x	ET639437	6-TR61,62	SP323765	11-36x		2-9
BM323629		EI306141	7-IC2	ET639437	6-TR3to8	SP323766	11-34x	ZS463353	11-51x
BM324427		E1308936	6-IC1	ET639437	7-TR10,11	SP323767	11-37x	ZS463353	13-22x
BT324069		EI315799	8-IC1,2	ET639437	7-TR15	SP323768	11-40x	ZS464692	2-13
BT324070		EI316170	6-IC7	ET639437	9-TR1to4	SP323769	11-55	ZS464703	4-37
BT324071		EI322490	6-IC4to6	ET666404	6-TR24	SZ324031	12-13	ZS477876	4-24
BT324072		EI323780	9-IC1	ET666404	6-TR26,27	SZ324032	12-11	ZS479474	4-9
BZ323633		EI324061	4-11	ET666404	6-TR30	SZ324035	12-25	ZS490228	11-57
EC305677	· 7-C14	E1324001	4-11	21000404	0 1100	555	12 20		
EC305679	7-C4	EI605013	7-IC1	ET666404	6-TR42	SZ324041	13-31x	ZS524812	2-6
EC306986		EI633982	6-IC2,3	ET666415	6-TR35	SZ324042	13-32	ZS537085	4-13
EC307258		EJ301513	11-49x	ET666415	6-TR52	SZ324122	12-23	ZS558101	13-4x
EC308940		EJ316156	11-10	EV306737	7-VR2	SZ324124	12-24x	ZS590804	2-8
EC314688		EJ321328	11-9	EV315412	7-VR3	TC289484	11-54	ZS592378	3-14
EC315964		EJ323788	7-J1	EV315414	7-VR8	TC309145	4-8	ZS608095	4-35
EC315966		EJ324276	11-14	EV321682	6-VR2	TC309206	5-8	ZS608185	5-10
EC315968		EL317599	4-34	EV322366	7-VR5	TC317433	3-16	ZS609074	4-12x
EC316184		EL324286	12-8	EV322416	7-VR4	TC317454	5-7	ZW231030	11-53
EC316230		EM315859	8-IND1	EV322416	7-VR6,7	TC317455	5-11	ZW263946	11-52
		mo		TEXTOS	# 17D 4	TOSSA	4.10	ZWARAAAA	2.2
EC321066		EO315758	7-FL3	EV324366	7-VR1	TC323621	4-10	ZW270088	3-3
EC321068		EO321295	7-L2	EV324396	7-VR9	TC323627	3-22	ZW270088	4-19
EC321302		EO321336	7-L1	EV324397	11-11	TC323725	2-16 4-40	ZW270088 ZW270088	5-14 11-27
EC324005		EO323789	7-T1	EW305691	11-44x 11-43x	TC324289 TC324298	5-4	ZW270101	4-22
EC324076		EO323790	7-FL4	EW306427				ZW273756	6-5
EC324272		EO669273	10-L1,2	EW306428	11-42	TC324401	4-47 2-2	ZW290283	3-15
EC324274		EP308973	7-RL1	EW315767	11-45x	ZG289236 ZG309225	3-5	ZW290283	4-21
EC324275		EP313497	3-13	EW322400	11-46x			ZW290283	11-26
EC324402		EP324062 EP324278	4-23 4-17	EW322401 EZ631945	11-47x 11-48	ZG309226 ZG312964	3-7 4-46	ZW305013	13-35x
EC327382	? 11-7x	22. 32.72.10	-F=4.7	22031743	21-70	20012707			
ED306109	9 6-D2	EP324395	11-24	HE321585	2-12	ZG312999	5-18	ZW309295	4-49
ED306109		ER301441	7-R30	HP319079	2-5	ZG313001	3-23	ZW321437	4-14
ED306109		ER309119	7-FL2	HZ309128	2-3	ZG313044	11-28	ZW322525	4-43
ED306109		ER309120	7-FL1	MB282104	3-6	ZG313165	5-9	ZW322525	5-15
ED306109		ER311503	11-23x	MB282778	4-2	ZG322048	3-11	ZW322912	3-19
ED308952		ER312487	6-R1	MB282778	5-2	ZG323312	12-20	ZW323734	4-44
ED308952		ER319177	6-R6	MB323681	4-50	ZG323699	4-31	ZW356657	4-25
ED308952		ER320337	10-R1	MB323686	4-16	ZG323702	4-45	ZW357164	5-13
ED308952	-	ER324081	6-R85	MB668801	11-29	ZG323714	4-39	ZW381644	
ED308952		ER327441	7-R88,89	MH323720	5-5	ZG323715		ZW413267	11-21
		ER409814	7-R09	MI200414	2.12	7G202726	3_17	ZW432753	3-10
ED308952			7-R98 11-50x	MI309414 ML309229	3-12 3-8	ZG323736 ZG324400	3-17 4-42	ZW432753 ZW516993	
ED309069		ES312050	7-SW1	MR323683		ZG365433	3-4	ZW563218	6-6
ED309069		ES315159	11-2x	MR323722		ZG370350	4-26	ZW589893	5-17x
ED309357		ES323786	7-SW2	MS309141	4-6	ZG465636	2-10	ZW590207	
ED309351		ES324007	11-12	MT305793		ZG469315	3-9	ZW590207	
ED313623		ES324008	11-13	MT312122		ZG494403	12-17	ZW591265	
ED315960		ES324009	6-SW1-2	MV269965		ZG595506	3-25	ZW649991	5-16x
ED316143	_	ES324063	4-36	MV309146		ZS267254	2-17		
ED31614		ES324271	7-SW3	MZ283140		ZS302318	4-4		
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ED31614		ES665807	11-1	MZ323757		ZS306486	11-31x		
ED317594		ES665875	11-3x	SA324129	11-56	ZS310588	13-21x		
ED317594		ET301464	7-TR9	SB323309	12-18	ZS315878	13-20	1	
ED31917		ET305463 ET307349	6-TR3 6-TR31	SB323310	12-19x 4-32	ZS318208 ZS321338	4-41 4-3		
ED31917		ET307349	7-TR14	SB323696 SB323697	4-32 4-33x	ZS321336 ZS323728	4-3		
ED324013		ET308937	6-TR2	SB323778	12-15	ZS323728	13-2x		
ED324083		ET308937	6-TR34	SB323779	12-15 12-16x	ZS324043	13-33		
ED326139		ET308937	6-TR36	SB324039	13-16	ZS324374	4-18		
ED56091		ET308937	6-TR39	SB324040	13-17x	ZS324374	11-25		
•		Emagaaaa	c mn	gnaaraa	10.0	75305405	4.07		
ED56091		ET308937	6-TR41	SB324279	12-2	ZS325495	4-27		
ED56091		ET308937	6-TR51	SB324280	12-3	ZS325495	11-22		
ED56091	3 6-D43to46	ET308937	6-TR53	SB324282	12-4	ZS325495	13-5x		
ED56091:		ET308977	7-TR12,13	SB324283	12-5 12-6	ZS356804 ZS356804	2-7 7-2		
			4.TD2"				1-4		
ED56091	3 6-D56	ET309353	6-TR37	SB324284					
ED560913	3 6-D56 3 6-D58	ET309353 ET309353	6-TR50	SB324285	12-7	ZS379350	6-7		
ED560913 ED560913	3 6-D56 3 6-D58 3 6-D60,61	ET309353 ET309353 ET309353	6-TR50 6-TR54	SB324285 SE323777	12-7 12-14	ZS379350 ZS379405	6-7 12-12		
ED56091: ED56091: ED56091: ED56091:	3 6-D56 3 6-D58 3 6-D60,61 3 6-D63t067	ET309353 ET309353 ET309353 ET311832	6-TR50 6-TR54 7-TR1	SB324285 SE323777 SE324030	12-7 12-14 12-21	ZS379350 ZS379405 ZS413234	6-7 12-12 11-20		
ED560913 ED560913	3 6-D56 3 6-D58 3 6-D60,61 3 6-D63t067 3 6-D69,70	ET309353 ET309353 ET309353	6-TR50 6-TR54	SB324285 SE323777	12-7 12-14	ZS379350 ZS379405	6-7 12-12		

SCHEMATIC DIAGRAM

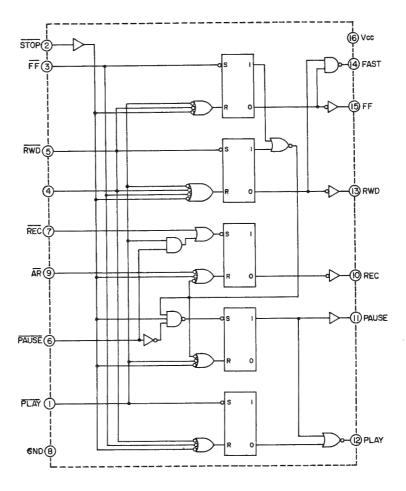
- 1. SCHEMATIC DIAGRAM OF ICs
- 2. UC-F5 NO. 2-1 1600630A SCHEMATIC DIAGRAM
- 3. UC-F5 AMP NO. 2-2 1600631A SCHEMATIC DIAGRAM



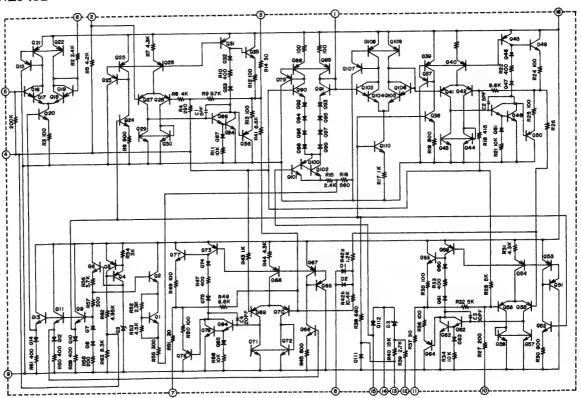


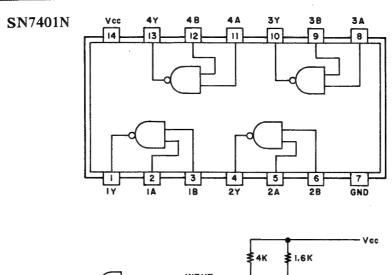


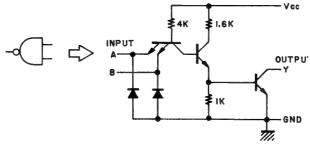
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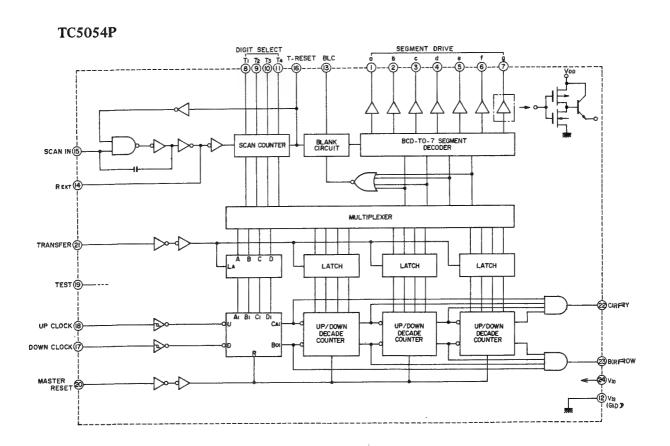


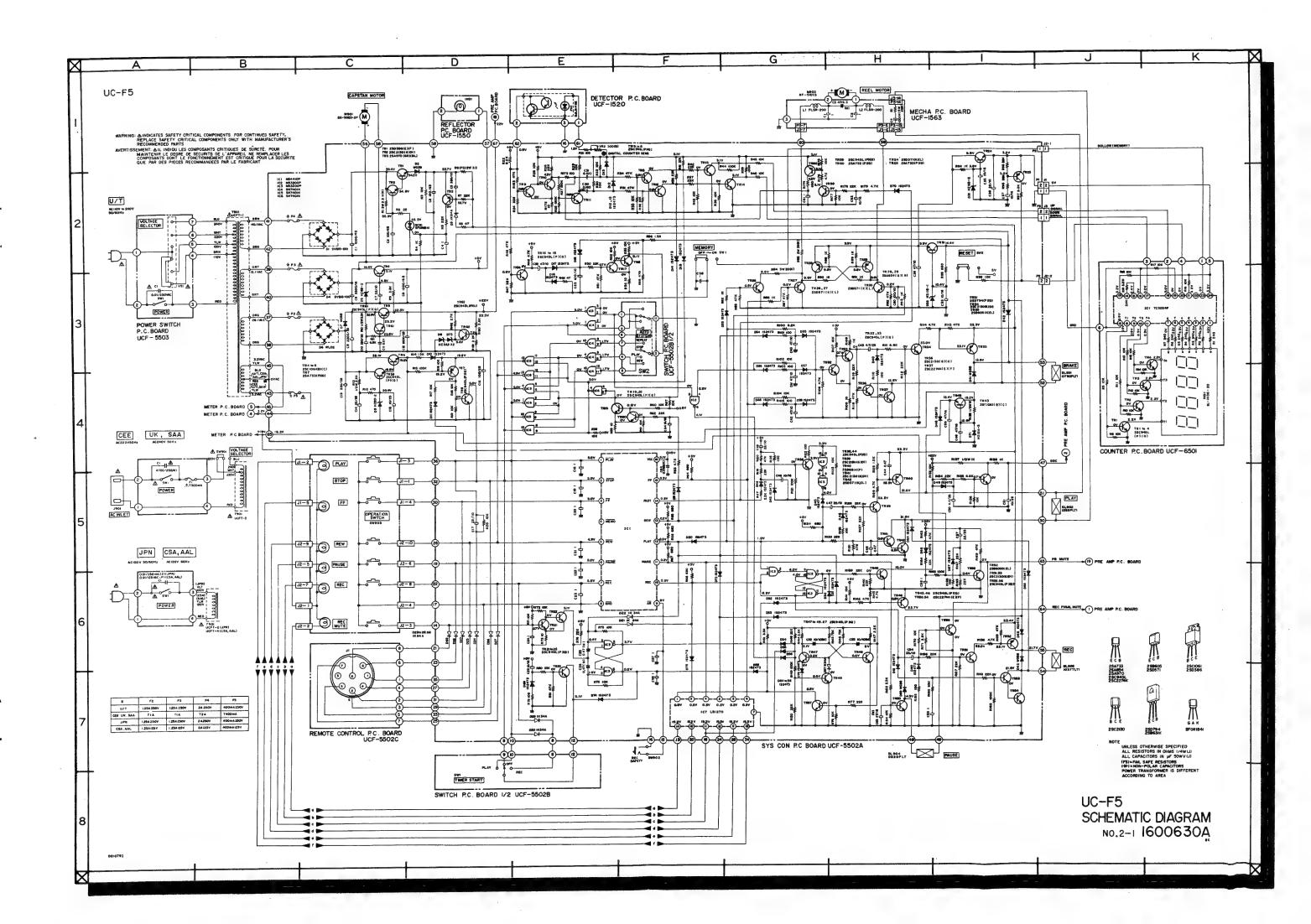
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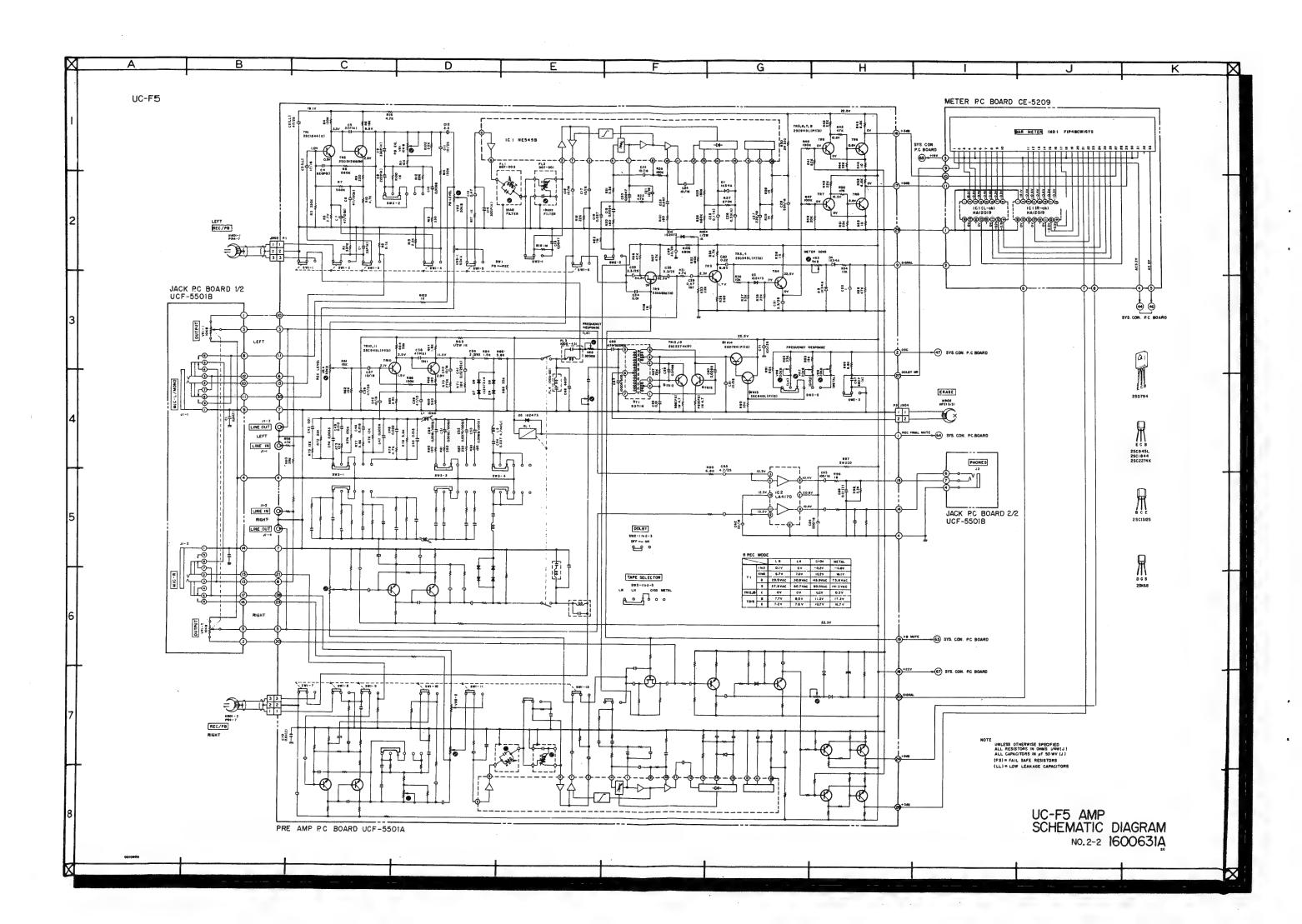












COMPOSITION OF VARIOUS P.C BOARDS

Sys. Con P.C Board UCF-5502A (3ED), Switch P.C Board UCF-5502B and Remote Control P.C Board UCF-5502C

